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EDITORIAL

Railway Age

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Facts About the Threatened Strike

THE TESTIMONY of the heads of the railway labor brotherhoods before the Railroad Labor Board on Wednesday did not settle the question whether there will be a strike. It did, however, seem to make clear certain points. One of these is that the Railroad Labor Board cannot prevent a strike and that nothing can prevent it except intervention by some other federal government official or authority. Another thing made clear is that if the members of the brotherhoods strike the only tangible ground for their action will be the reduction of wages authorized by the Railroad Labor Board and put into effect by the railways on July 1.

The questioning of the heads of the labor organizations was done mainly by Ben W. Hooper, one of the public members of the Board. Mr. Hooper has been much criticised for the plan for a prevention of the strike which was issued by him in Washington. Whatever may be said about the suggestions he has offered for preventing the strike, it cannot be gainsaid that his conduct of the hearing on Wednesday was a masterly piece of work. It showed that whatever mistakes he may make, the Board has in this new public member a skillful lawyer and an able man. W. G. Lee, president of the Brotherhood of Railroad Trainmen, in his testimony stated unequivocally that the members of his brotherhood were proposing to strike solely because of the wage reduction of July 1. He also left the impression, although he did not say so, that he did not think there was sufficient ground for the strike and was really opposed to it. The heads of the other brotherhoods made statements indicating that the strike had been authorized not only because of the wage reduction July 1, but because of other things the railways had done or proposed to do, such as making a further reduction of wages, but under Mr. Hooper's skillful questioning they were forced to make plain that while other matters had been mentioned in communications sent by them to their members and had influenced the result of the strike vote, the brotherhoods had no tangible ground whatever for striking except the wage reduction authorized by the Labor Board.

The Board having made it plain by the answers it got to its questions that the only question directly involved, or which could by any possibility be settled by a strike, is the wage reduction made effective on July 1, asked the brotherhood leaders another series of questions as to how the strike

could be averted. The brotherhood chiefs all answered these questions to the effect that the strike could not be averted unless a settlement was reached which was satisfactory to them and their executive committees. In response to the Board's inquiries as to whether a strike could be averted by a finding of the Board that it was unfair and unjustifiable and an order by the Board that the strike should not occur, the brotherhood chiefs made answers which either evaded the direct issue raised or explicitly indicated that no such finding and order by the Board would have any effect. One stated that the order would be fruitless; another that the men would not obey the order and two positively stated that such a finding and order by the Board would have no effect. Nothing, they indicated, could prevent a strike except a settlement which was satisfactory, not to the Board, but to the heads of the brotherhoods and their executive committees.

Some other facts were established by the evidence which have a very important bearing on the question of whether if the strike comes it will be successful. It was shown that on a number of railways the members of the Brotherhood of Railroad Trainmen had voted against a strike and that on a still larger number of roads the conductors had voted against it. The number of roads on which the men failed to vote for a strike varied from three or four for the firemen to about 23 for the conductors and the railways on which the conductors voted against a strike include several of the largest systems in the country.

The man who at the time this editorial is written can predict with any confidence whether a strike will actually come has an extraordinary confidence in his own prescience. It is plain, however, that if it does come it will be ineffective on a substantial number of railways. It is also plain that it will be a strike against a decision of the Railroad Labor Board and a strike which the Board has clearly indicated will be unfair and unjustifiable. While the railways will have to bear the brunt of the struggle, and it will be a strike against the public and against a federal tribunal established by a federal law, it will manifestly be the duty of the railways to spare no effort to win it. But in the circumstances, however, it will be even more plainly the duty of the public and of the United States government to adopt and carry out measures which will make its failure certain.

How Railroad Wages Should Be Readjusted

WHETHER A STRIKE comes or not, the railways should in a short time be before the Railroad Labor Board seeking extensive changes in the wages now paid by them. The policy of the Interstate Commerce Commission, as indicated in its decision ordering general reductions in grain rates, makes this even more necessary than it was before this decision was rendered.

The railways should not, however, ask merely for reductions of wages. They should present to the Railroad Labor Board a definite plan for so readjusting present wage scales that justice will be done as between the different employees, as well as between the railways and the employees. The present payroll is too large. It is not, however, too large because all employees are being overpaid. The real trouble is that many employees are being greatly overpaid, while some are not being much overpaid and some are not being overpaid at all. The managements for months have criticised the maladjustments in wages which have resulted from the advances granted by the Railroad Administration and the Railroad Labor Board. The managements should show their consistency, their fairness and their wisdom by proposing a definite plan for correcting the bad adjustments of which they have complained.

Among the points which ought to be considered in making up such a plan as is needed are the following:

First, for years many supervisory officers have not been paid as much in proportion as a great majority of employees, and as a class they have not received as large advances in proportion as most employees. The railways need loyal and able men in these supervisory positions, and they should show much more willingness than most of them have in the past to pay such men what they are reasonably worth.

Second, the railways should attack with all the force they can the standardization of the wages of each class of employees throughout the country which now prevails. The cost of living in large cities was much higher than in small cities and towns when the wages were standardized. Therefore, it was entirely wrong at that time to fix the same wages for every employee of each class throughout the country. The decline in the cost of living which has occurred within the last year has taken place very irregularly and has been much greater in the small cities and towns than in the large cities. This has greatly increased the inequity of paying a clerk who lives in Chicago, for example, no more than is paid to a clerk doing similar work and living at Topeka, Kan. Why should a man employed in the shops in Macon, Ga., for example, be paid as much per hour as a mechanic working in shops located in Chicago? Why should a conductor whose run requires him to live at Pittsburgh be paid no more than one whose run requires him to live at Herington, Kan.?

The resolution recently adopted by the Association of Railway Executives contemplates a reduction of about 10 per cent in the wages of train service employees and authorization of the payment to other employees of wages corresponding to those paid in other industries in the various communities. Before the Labor Board could literally carry out this plan it would be necessary to investigate the wages paid in other in-

dustries in every community in the United States, which is impracticable. If wages are to continue to be fixed by the Labor Board, and at the same time the present system of standardization is to be broken down, there must be worked out some plan for establishing differentials between the wages of employees doing the same class of work in different communities, these differentials to be based mainly on the differences between the living conditions in large centers of population and smaller places.

Third, full consideration should be given to the fact that the advances in wages which have been received by the employees in train service have been relatively less than the advances which have been given to many other classes of employees. The differences between the wages of train service employees and of many unorganized employees prior to government control were too great, and there should be no attempt to restore most of the old differentials. On the other hand, the fact should be recognized that men directly concerned with the operation of trains, including train dispatchers, are almost the only employees who are distinctively railroad men. If a mechanic does not like the conditions of his work on a railroad he can leave and go into a factory. On the other hand, a conductor or locomotive engineer requires special knowledge and training to fit him for railway service which do not fit him for anything else. The railways need a high grade of men for train service, and since they can hardly get such men from any other industry there must always be paid in train service wages high enough to insure that the railways will get a sufficient number of good men.

Fourth, the changes in wages which have occurred in recent years, and especially those made under government control, have resulted in many cases in unskilled, or practically unskilled, workmen receiving such disproportionately large increases in their pay that they are receiving almost as much as skilled workmen. This is especially true among the shop crafts employees. It is unjust to the men and impairs efficiency. Unless men are paid substantially more for work requiring skill and experience than is paid to the unskilled, the incentive to become really skilled workmen is destroyed.

One of the principal reasons for the continuance of such unsatisfactory labor conditions on the railways has been that the railways have not worked out and advocated any definite, understandable and clearly defensible program for improving the conditions. The result is they have helped the labor leaders in their efforts to convince the employees that all the railways want is to drive down wages regardless of the rights or interests of the employees. While a majority of the railway executives have believed it was desirable for all labor negotiations to be carried on between the individual managements and their own employees, this has not been and is not now any good reason why the railways should not have a definite general program which could be presented to the employees and the public and the reasonableness and fairness of which would appeal to them.

The railways some months ago adopted a program under which each railway was to treat with its own employees regarding wages as well as working conditions. The result was

almost no concert of action between the railways in presenting their case for reductions in wages to the Labor Board and the presentation of their cases in different ways and upon different grounds. The experience of recent months has shown that there is such a thing as individual action by the railways in dealing with labor problems developing into something closely resembling anarchy. It is to be hoped that when the railways appear before the Labor Board again for reductions in wages they will be better prepared than they were in the last wage hearings to tell the Labor Board, their employees and the public exactly what they want and why they want it.

The action of the Senate on October 4 in adopting an amendment to the pending tax bill providing for a repeal of the transportation taxes effective on January 1, which corresponds to a provision in the bill already passed by the House, practically assures the shippers and passengers of the country a reduction in the cost of transportation for next year of approximately \$250,000,000. While the amount of the tax, 3 per cent, is comparatively small on freight transportation when compared with the increases in freight rates themselves that have resulted from the effects of the war, it is no inconsiderable item to a large shipper and adds to the grievance felt on account of the rate increases. The taxes on passenger and Pullman accommodation tickets, 8 and 10 per cent, not only represent an appreciable addition to the expense of travel, but as they are added separately to the rates received by the railroads they have constituted a source of much irritation. It is somewhat interesting to railroad men to observe that, although many high officials of the government and particularly members of Congress have long been insisting upon reductions in railroad rates, the government itself has been somewhat slow in acting to sacrifice its revenue for the purpose of reducing transportation costs.

It is true that the labor problem overshadows all others at the present time and yet railroad men are giving considerable attention to shop equipment needs as evidenced by the recent increase in machine tool purchases. Several rather large orders have been placed by eastern railroads and other orders are about to be closed. It is reported that in some cases orders are being held for further price reductions and in this connection, a word of caution may well be uttered. While no manufacturer should be allowed to charge exorbitant prices, it is certainly possible to carry the policy of beating down prices to too great an extreme. In the first place, if a machine is needed in a railroad shop for certain work, every day that the shop is compelled to forego the use of this machine costs the railroad just so much money, which in the end may more than equal the saving due to price reduction. Then again, if manufacturers are forced to sell machinery below prices affording a reasonable profit, the inevitable result will be the production of cheaper, less reliable machines to meet those reduced prices. Inefficient, worn-out machinery in railroad shops should be replaced as fast as possible. A case has come to our attention in which a modern production machine was installed recently in a large locomotive repair shop and readily handled the work formerly performed on four machines. It is evident

that the resulting large reduction in labor cost and greater speed of producing locomotive parts made the investment in this machine a most profitable one. Progressive railroads are following the example cited and have adopted the sound policy of installing modern labor-saving machinery in shops and enginehouses as fast as the necessary funds can be obtained. It is only in this way that the possibilities of efficiency in shop operation can be realized and made to assist in helping to increase the gap between railroad revenues and expenses.

There are many factors in the present business situation that point to better times ahead. Railroad men who follow the figures on car loadings and earnings know that the position of the railroads is improving. There remains yet, of course, a labor problem and a rate problem to be solved before the carriers can feel that their difficulties are behind them. Other lines of business, where the managers are untrammelled in the conduct of their enterprises along legitimate lines, are looking forward to an early resumption of normal business activity. Capital is available for their undertakings at favorable rates and they are finding it easier to interest the banks in financing their activities. The buying public is once more in the market for commodities which it refused to purchase at higher price levels. Many basic industries reflect the prevailing optimism in their increased production. All the signs point to better times as the present year draws to a close and when the present acute problems of the railways, are solved the railroads should, with the co-operation of the public, be in a position to join with other business and other industries in normal activity, normal returns on investment and normal programs for needed additions and betterments.

The subject of organized labor with its ramifications is the momentary sovereign of railway thought. That is self-evident. However preëemptorily ushered in and however little its presence is to be desired, the fact remains that it constitutes an immediate concern in office and shop, originating conjecture, animating discussion, demanding and getting audience. And from its nature and its significance it is well that having precipitated itself upon thought, that thought should be concentrated upon it. But with all that there are subjects incident to the operation of railroads which, though capable of being subordinated momentarily to the predominating concern, should not be allowed to suffer from neglect or even exclusion and the subject of fire prevention is among these. Last week 150 men from 77 roads devoted three days to serious consideration of means for protecting railway property from fire. This week they are back within their several jurisdictions pledged to the work of reducing the enormous, the unnecessary and preventable losses from fire which railroads experience annually. In convention they sounded an appeal for the co-operation of the railway managements and operating officers. They need that support on the part of those who are in actual charge of the management of the railroads in carrying out this important work. Furthermore, they must have it and while many officers find themselves almost submerged by the subjects seemingly of more immediate concern, it is hoped that they will not neglect to contribute their support to a movement and work potential of such salutary results as fire prevention.

Transportation Taxes to Be Repealed

The Business Situation

Buying Machine Tools

Backing up the R. F. P. A.

The Important Grain Rate Decision

THE DECISION rendered by the Interstate Commerce Commission last week holding that the rates of the western railroads on hay, grain and grain products should be substantially reduced is epoch making in some important respects. While it is probably justifiable in the circumstances existing, it is based on novel principles and is inconsistent with opinions previously rendered by the commission in important rate cases.

Throughout the history of rate regulation there has been contention between those who have believed that rates should be based mainly on the value to the shipper of the service rendered to him by the carrier, and those who have believed that they should be based mainly on the cost incurred by the railway in rendering that service. The chief measure of the value of the service to the shipper always must be the difference between the cost of his commodity to him and the price he can get for it at the place to which it is shipped. If the freight rate on grain from a point in Iowa to Chicago exceeds the difference between the cost of producing the grain in Iowa and the price that can be got for it in Chicago, then the freight rate exceeds the value to the farmer of the service rendered in transporting the grain to Chicago.

For many years the rates charged by the railways were so much less than the value of the services rendered by them that shippers as a class, and their attorneys for them, attacked and resisted every effort of the railways to base schedules of rates upon the value of the service. The commission in its recent opinion shows that the price of wheat increased from 78.4 cents per bushel in 1913 to \$2 in 1917, or over 105 per cent. The value of the service rendered by the railways in transporting the wheat necessarily increased in much the same proportion, and therefore on this principle it would have been justifiable for the railways to have made large advances in their rates on wheat. Meantime, as the commission points out, railway rates on wheat stood practically still. Similarly the value of most other commodities advanced unprecedentedly while the railway rates on them stood still. Everybody knows that the railways more than once tried to advance their rates during this period. They were prevented because the commission, in conformity with the arguments and insistence of shippers and their attorneys, rigidly applied in the regulation of rates the "cost of service" principle.

On the cost of the service principle as then advocated and applied, railways are entitled to rates which will enable them to earn enough to pay their operating expenses and taxes and a reasonable return on the value of their property. It was argued that while they should not be restricted to any less than this they should not be allowed to have anything more. The result was that while because of great increases in their prices the farmers and other producers in the United States made unprecedentedly large profits the average net return earned by the railways in the three years ended with 1917 was only 5.2 per cent. In the next three years—1918, 1919 and 1920—during most of which time they were under government control, the railways were guaranteed only the same net return as they had earned in the three years before, while the prices and profits in other industries mounted to even greater heights.

Toward the end of 1920 the guarantees to the railways were withdrawn and they were thrown on their own financial responsibility under new legislation which was based almost entirely on the cost of service principle of rate-making. It was naturally assumed that thereafter the value of the service would receive little recognition in the making of entire schedules of rates—that the rates as a whole would be based on the cost incurred by the railways, including a fair return.

Experience speedily showed that economic laws are more powerful than any act of legislation or order of a commis-

sion. An unprecedented slump in traffic rendered it impossible throughout the first year the new rates were in effect for the railways, in spite of the most drastic retrenchments, to earn one-half of the net return authorized by law. The average advance in rates from before the war up to 1920 was hardly one-half as great as the average advance which had taken place in wholesale prices. But within a few months prices in general declined so much that many of them became relatively lower, and some of them much lower, especially those of farm products, than railway rates.

The result was a widespread demand, which was pressed with the utmost force by the farmers and their representatives, for reductions of rates. This demand was based almost entirely on the ground that the rates were higher than the shippers could afford to pay—in other words, exceeded the value of the service rendered to them.

It was extremely difficult to see how, in view of its previous decisions, the provisions of law under which it was acting and the railroad conditions existing, the commission could find a way to hold that the rates on large and important classes of commodities should be reduced. It has, however, ordered hay, grain and grain products rates reduced upon two grounds.

The first, and plainly the controlling, consideration, is that the rates are excessive in proportion to the value of the service rendered to the shipper—in other words, that the prices the farmer gets for his products have declined so much that he cannot afford to pay the rates. This finding is justified by the facts. It must, however, be recalled that in previous cases when the railways introduced or sought to introduce evidence regarding advances in prices which had occurred and large profits which were being made in other industries to show that these other industries could afford to pay higher rates, the commission practically dismissed such considerations upon the ground that the rates which other industries could afford to pay had little or nothing to do with the question of what rates the railways should be allowed to charge. It is unreasonable to hold in one case that the fact that the profits being made in an industry are large should be given no weight in considering whether the rates charged it should be increased, and to hold in another case that the fact that an industry is making little or no profit is a reason why the rates charged it should be reduced.

The second ground upon which the commission holds the rates should be reduced is that the operating costs of the railways are going to be lower in future. It concedes that there cannot be found in the present operating costs or net return any justification for a reduction of rates. The commission derives its powers from a law which requires that until March 1, 1922, it shall allow the railways to charge rates which under efficient and economical management will enable them to earn a return averaging at least 5½ per cent per annum. In the first eight months of this year the railways earned at the rate of only 2.6 per cent, and if not a single rate were reduced the net return earned during the entire year 1921, in spite of the improved showing now being made, would hardly exceed 3 per cent. How could the commission conclude from the facts and the law that it should order a large reduction of rates?

It reached this conclusion by expressly disregarding both the past and the present and looking only to the future. Referring to the rate-making provisions of the Transportation Act, it says "the duty cast upon us by Section 15a is a continuing duty and looks to the future. It does not constitute a guarantee to the carriers, nor is the obligation cumulative. We are not restricted by past or present statistics of operation and earnings. They are serviceable only as they illuminate the future. What is contemplated by the law is that in this exercise of our rate-making power the results shall reflect our best judgment as to the basis which may

reasonably be expected for the future to yield a prescribed return." The provision of the Transportation Act specifying that the railways should be allowed to earn a return of 5½ per cent runs only to March 1, 1922, and it is evident the entire two years which it covers will expire without it ever having been given any real effect.

Furthermore, there is no certainty that the operating costs of the railways will be in future what the commission anticipates, and this for a reason which is made quite plain by Commissioner Potter in his concurring opinion. The majority opinion, which was written by Commissioner Aitchison, while it is predicated largely upon future developments, has very little to say concerning the changes which are essential to causing these future developments. Commissioner Potter goes boldly to the root of the matter. He agrees with his colleagues that the rates are too high and should be reduced. He makes clear, however, not only that the present operating costs of the railroads do not justify any reductions in rates, but that their future operating costs will not justify any substantial reductions of rates unless and until there have been further reductions of wages. He then states a principle which must be recognized and acted upon by the Railroad Labor Board if our present system of government regulation of rates and wages by two different bodies is not completely to break down. He says: "In considering what railway employees should receive, regard should be had for what shippers can afford to pay. The record in this case shows the Labor Board has declined to give consideration to this broad basic question." Commissioner Potter draws the logical conclusion from his proposition, adding, "If the broad economic question as to how much shippers can afford to pay is a question to be determined by us (the Interstate Commerce Commission) when we fix fair and reasonable rates, it will follow that the Labor Board in considering wages would regard our finding as one of the relevant circumstances to be taken into consideration in fixing rates."

The commission holds that the present grain rates are excessive and that the present high operating costs of the railways are no ground for maintaining them in view of the future reductions in operating costs which it expects to occur. This is clearly equivalent to finding that a continuance of the present high operating costs would be unreasonable—a conclusion which is implicit in the opinion of the majority of the commission and is explicitly stated in Commissioner Potter's concurring opinion. But suppose the Labor Board does not permit the reductions in the payroll which are prerequisite to the reductions in operating costs which the commission recognizes as necessary to justify the reductions in rates it has ordered? Obviously, if the commission is to order rates reduced on the ground that they are too high for the shippers to pay, and the Labor Board is to refuse to reduce wages on the ground that they are no higher than labor ought to receive, the railways are not going to earn the net return which the law makes it the duty of the commission, assuming economical and efficient management, to enable the railways to earn. But the law makes it just as much the commission's duty to see that the railways are given a reasonable opportunity to earn a fair return as to protect the shippers from excessive rates.

It seems probable that if the railways should appeal to the courts from this decision they would hold that it disregards both the Transportation Act and the constitutional prohibition of confiscation. Nevertheless, it is difficult seriously to criticise the commission either for its findings of fact or for the decision reached by it. It deserves commendation for the weight it has now given to the principle of the value of the service, although it is rather remarkable that it should have given it such full recognition in this case and so little recognition in previous cases when it would have operated to the advantage of the railways. There can be no just criticism of the commission for having ordered rates

reduced in anticipation of large future reductions in operating costs, if that anticipation is reasonable. Since, however, the law puts upon it the duty, not only of reducing rates which are excessive, but also of seeing that the railways are economically operated and are given opportunity to earn a fair return, does it not now become its plain duty actively to help the railways secure the reductions in operating costs without which they cannot earn a fair return under the reduced rates?

Impact Effects of American and Foreign Locomotives

IN THE EDITORIAL "Are American Locomotive Harder on Bridges," which appeared in the issue of October 15, a brief reference was made to the effect of the dynamic augment due to the counterbalance on bridge stresses. Inasmuch as European engineers have repeatedly made the statement that American locomotives produce greater impact stresses than the European engines, it may be well to give further attention to this aspect of the subject.

The counterbalance is applied to locomotive driving wheels primarily for two reasons; first, to balance the rotating weights, such as the crank pin and side rod, and, second, to counteract to some extent the longitudinal inertia forces caused by the reciprocating parts at the end of the stroke. The revolving parts can be balanced perfectly for all speeds and for every position of the wheels. The counterbalancing of the reciprocating parts, however, is always a compromise between two conflicting requirements. In order to make the locomotive ride smoothly, it is desirable to counterbalance the entire reciprocating weight at the end of the stroke; on the other hand, if the dynamic augment or impact stresses set up by the locomotive are to be minimized, the reciprocating weights should not be balanced at all. Assuming that the design has been made as light as possible, considering the material and the stresses involved, the percentage of the weight of the reciprocating parts to be balanced is a matter of judgment in deciding between the permissible vibrations of the locomotive and the dynamic augment that can safely be borne by the track.

Engineers in this country have investigated the effect of practice now generally observed is as follows: The weight of the reciprocating parts on one side of the locomotive is various methods of counterbalancing and as a result the limited to 1/160 of the total weight of the engine in working order and from 50 to 66 per cent of the reciprocating weight is balanced. The excess pressure due to the counterbalance is not permitted to exceed 50 per cent of the static wheel load when the speed in miles per hour is equal to the diameter of the drivers in inches.

The practice followed in counterbalancing locomotives in England is similar to that in this country. In the European countries, however, the practice is quite different. In France it is customary to specify the maximum load for a given speed and weights only sufficient to produce this result are added to the counterbalance, irrespective of the effect on the engine. In Germany a government ruling requires that the blow on the rail at the highest speed shall not exceed 15 per cent of the wheel load. The proportion of reciprocating weights balanced to conform to this rule varies from 15 to 60 per cent.

Any method which balances less than 50 per cent of the reciprocating masses for two-cylinder locomotives will inevitably result in a rough riding engine, producing shocks and vibrations especially when much lost motion exists in the bearings of the main axle. Generally speaking, American and English practice favor the locomotive and presuppose fairly good bridges and track while the French

and German practices favor the track. If American locomotives require somewhat heavier and more costly bridges, the fixed charges on the additional investment are no doubt offset by the decrease in maintenance cost of the locomotive itself resulting from the superior balancing of the reciprocating parts.

It is evident from the foregoing that the only reason why locomotives built in this country should produce greater impact than European locomotives is the difference in the method of counterbalancing. There is no question but what the American practice is good for the locomotive though it is not as favorable to light bridges and light track as some of the European rules. If American builders desire to sacrifice riding qualities in order to reduce the stress on track, they can construct locomotives that will produce no more impact than the foreign locomotive.

Railway Stock More Widely Distributed Than Formerly

THE INTERSTATE COMMERCE COMMISSION has again called attention to the wide distribution of the ownership of railroad securities by including in its preliminary abstract of statistics of common carriers for the calendar year 1920 a statement giving the number of stockholders of Class I roads as 709,795, of which 324,514 held stock in railways of the Eastern district, 67,495 in railways of the Southern district, and 317,786 in railways of the Western district. The average holding was 10,269. A special report on the distribution of railroad security holdings issued by the commission in 1919 gave the number of stockholders of Class I roads and their non-operating subsidiaries as of December 31, 1917, as 627,930. There has, therefore, been an increase in three years of more than the 81,865 difference between the two figures.

While the report contains no comment or analysis, it confirms the indication made by the large increases which have been shown each year recently in the number of stockholders of some of the larger roads that, like the Pennsylvania, regularly publish the number of their stockholders, and under the circumstances it is particularly significant. It is apparent that many of the larger holders of railroad stocks have been selling some of their holdings and that they have been purchased, in smaller average lots, by a larger number of buyers. It is well known that many large investors have transferred their holdings from taxable securities to tax-exempt securities for the purpose of avoiding the heavy sur-tax rates of the income tax law, but it is also very probable that many holders of railroad stocks have preferred to get out of a business in which the possible returns hardly warrant the risks required and that what they have sold has been taken over by smaller investors who have thus distributed the risk over a larger number of persons.

A prominent member of a Congressional committee that has held many hearings during the last five years on various aspects of the railroad problem was in the habit of remark-

ing frequently that in view of the conditions depicted by the railroad witnesses he could not see why the owners of the railroads did not sell out. Of course, if they did, there would be a new set of owners to be considered and the statistics indicate that that is just what has happened. Many of the owners of the railroads have been selling their stock—at a loss—but the lower prices of stocks have attracted more to take their places. These figures, of course, take no account of the holdings of railroad bonds and other securities which are much more widely distributed than stocks.

Southern Railway

THE SOUTHERN RAILWAY'S income statement for 1920, given in the annual report issued recently, showed a balance of income over charges of \$1,716,149, as compared with \$5,141,567 in 1919. There were charged against the 1920 net, dividends of 2½ per cent, or \$1,500,000, on the preferred stock. The balance carried to the credit of profit and loss was but \$113,714. In 1919, the dividends charged against income totaled \$3,000,000, or 5 per cent on the preferred, and the balance carried to profit and loss was \$2,137,260.

The Southern Railway in 1920 did the largest business in its history. Increased costs of operation, however, prevented it from realizing on the gross income resulting from the business handled. The road, it will be remembered, decided not to accept the guaranty for operations from March 1 to August 31, 1920. The operating results for the six months justified this decision. While it is true that the Southern Railway itself fell \$700,000 short of earning as much as its guaranty would have been, the system as a whole, including the Cincinnati, New Orleans & Texas Pacific, the Alabama Great Southern and the New Orleans & Northwestern, had a net railway operating income about \$600,000 in excess of what the guaranty would have amounted to. The difficulty with the Southern was its small net return in the latter part of the year; during the last four months of 1920 the road had operating ratios of from 88 to 94 per cent. The Southern report gives some interesting comparisons of the costs of operation in 1920 as compared with 1917. A selection of the figures shown gives the following details:

	1920 compared with 1917	
	Per cent increase	Per cent decrease
Gross revenue	68.46	.....
Expenses and taxes	111.44	.....
Operating income .....	.....	36.09
Tons of revenue freight hauled	15.82	.....
Average receipts per ton per mile	35.79	.....
Average wages paid	85.76	.....
Wages per dollar of revenue	23.75	.....
Average cost of fuel coal per ton	94.18	.....
Average cost of cross ties	137.29	.....

"So long as traffic continued at high tide," the report says, "as it did during the first six months after the end of federal control, these costs could be endured, but they were economically unsound, nevertheless, as was evident the moment the stimulus of traffic was withdrawn. Management, regulated in its every act except that of meeting the payroll, was then

SOUTHERN RAILWAY OPERATING RESULTS, 1912-1920

Year ended	Gross revenues	Operating expenses and revenues	Operating income	Ratio of expenses and taxes to gross revenues	Gross revenues per mile of road	Operating income per mile of road	Revenue tons	Revenue ton miles	Revenue train load	Average receipts per ton per mile (cents)
June 30										
1912.....	\$64,657,583	\$47,151,064	\$17,506,519	72.92	\$9,122	\$2,470	27,214,751	4,206,785,057	250	0.987
1913.....	69,676,720	51,821,005	17,855,715	74.37	9,903	2,538	29,449,589	4,557,486,801	260	0.982
1914.....	70,750,997	54,440,039	16,310,958	76.95	10,060	2,319	29,650,456	4,584,338,858	275	0.995
1915.....	62,199,510	48,779,455	13,400,055	78.46	8,846	1,906	25,896,412	4,205,792,203	305	0.962
1916.....	69,997,675	48,993,670	21,004,005	69.99	9,967	2,991	30,272,132	5,053,547,966	354	0.930
1917.....	81,388,325	57,056,872	24,331,453	70.10	11,655	3,484	34,741,523	6,016,582,254	373	0.912
Year ended Dec. 31										
1917.....	90,716,569	64,286,607	26,429,962	70.87	12,991	3,785	37,063,095	6,516,208,527	388	0.897
1918.....	126,574,297	95,597,672	30,976,625	75.53	18,126	4,436	40,074,691	7,234,628,988	399	1.053
1919.....	129,787,812	117,861,214	11,926,598	90.81	18,585	1,708	36,520,244	6,304,441,042	446	1.298
1920.....	152,817,410	135,927,394	16,890,016	88.95	21,915	2,422	42,928,381	8,236,072,484	461	1.218

deprived of the power to apply the remedies which alone can save a business in such conditions."

The Southern experienced the decline in traffic beginning in November. The recovery in traffic so far in 1921 has been slow; in July the net ton-miles of freight were only 554,415,000 as compared with 807,930,000 in July last year. Since July, however, conditions have gradually begun to show improvement. Because of the drastic economies, the net railway operating income has gradually increased month by month thus far in 1921. Whereas in January and February, 1921, there were deficits, in August the net was \$1,282,276. The net railway operating income for the first eight months of 1921 was \$4,989,231. As an assistance in comparison, it may be stated that the standard return for the property as based on the earnings for the three years ending June 30, 1917, was \$18,653,893. This would seem to make evident the reason for the action of the Southern directors in passing the preferred dividends.

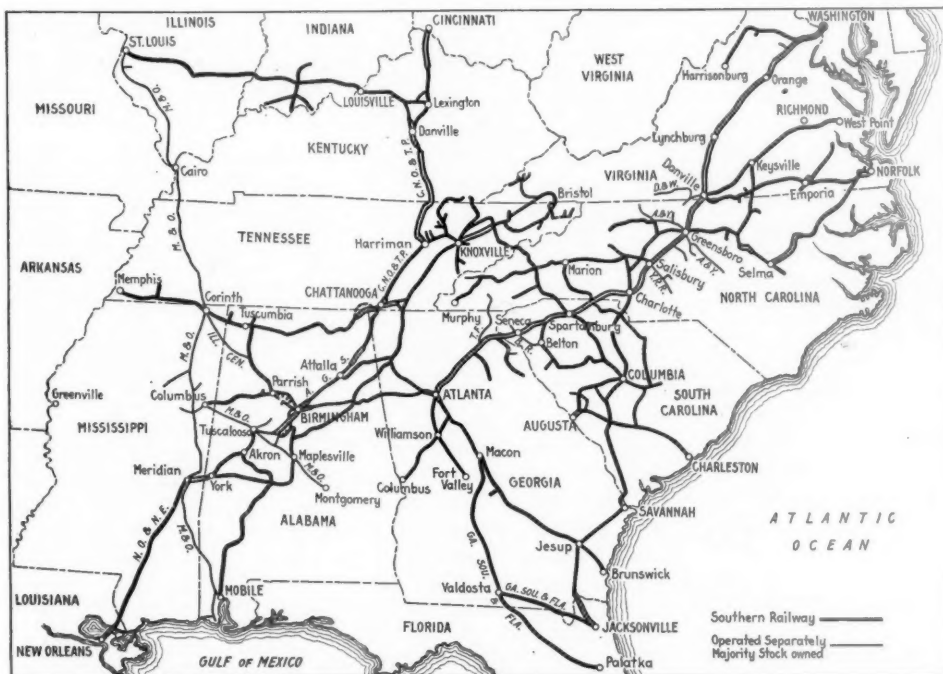
"The Southern Serves the South." Anyone who has traveled over the Southern Railway lines in recent months will appreciate that this motto is more than a phrase for use in

of 1919, the southern farmers produced a crop of 13,270,970 bales of cotton. Only about one-half this crop, however, was sold, the other half being held because of the declining prices and the hope that the high price would be restored. The result of this condition of affairs and its effect on the buying power of the South can easily be imagined.

The 1921 crop of cotton is expected to be about 6,000,000 bales. The hold-over of the 1920 crop, however has gradually been brought to market in recent months. Considering the change in conditions, it is not surprising that business in the South is rather more optimistic than it seems to be in most other parts of the country. Mr. Harrison further points out in his annual report that, "While estimates of the cost of producing the cotton crop of 1920 have ranged from 27 cents to 33 cents a pound, the crop of 1921 probably has been made at the lowest per pound cost in years, notwithstanding the small crop. Little fertilizer has been used and labor has been plentiful and cheap, conditions which afford reasonable assurance of a fair profit at the prevailing prices."

The railroads in the South have been making intensive efforts over a term of years to get the South away from its dependence on cotton. While it is true that the attention paid to cotton in 1920 and the low prices for agricultural products in general in 1921 have acted as a handicap, the progress that has been made, nevertheless, is considerable. The ravages of the boll weevil have proved a most serious factor in southern agriculture. The gradual northward march of the weevil, however, has not been without a certain compensating measure of advantage in that it has pointedly brought to the farmer the undesirability of relying on cotton as his single crop and has induced him to try his hand also at other things.

The Southern Railway now has a double track line from Washington to Atlanta of fairly easy grades, good alignment, etc. The Southern, except insofar as concerns this line, is in a state of transition. It has many branch lines; it still lacks yards and terminals. The improvement in the Southern lines in recent years, however, has been



The Southern Railway System

advertising. The service rendered is contained not only in the transportation service, but also in the efforts the Southern has been making over a term of years to educate the South to higher standards of agriculture, more particularly with reference to diversification of crops, the acquirement of live-stock, etc. In traveling through the South, one is impressed also by the interest the employees of the road seem to take in these things. The Southern Railway morale seems to be of extremely high standard. This is indicated in many ways; one of them is the manner in which the efforts of the traffic department are ably seconded by the operating department officers and men in the solicitation of freight.

Cotton, undoubtedly, is the most important single commodity carried over the Southern's rails. The tonnage of cotton carried in 1920 was 598,428 tons or 1.39 per cent of the road's total tonnage. The importance of cotton to the railroad consists not of the earnings received for moving the cotton, but the buying power which the cotton crop represents to the southern territory. In 1920, influenced by the high prices resulting from the abnormal demand and small crop

great. The progressive increase in the average revenue train load from 250 tons in 1912 to 461 tons in 1920, as shown in the table, is noteworthy. Over the line between Atlanta and Washington, the road is operating Santa Fe and Mountain type locomotives. A feature of the operation of this line is the manner in which freight traffic is concentrated on Potomac Yard. The train ratings out of Atlanta northbound are 2,300 tons for ordinary freight and 2,250 for carded or manifest freight. These are filled out at Toccoa, Ga., again at Greenville, N. C., etc. The Southern is giving a high grade freight service and is well regarded in shipping circles. One of its best trains is No. 52 or the Potomac Special. This train operates from New Orleans to Potomac Yard and has a running time of about 72 hours. "Carded" trains, as a whole, are allowed 36 hours from New Orleans to Atlanta and 52 hours from Atlanta to Potomac Yard.

SEVEN HUNDRED MEN returned to work after a long lay-off when the Chicago Great Western shops at Oelwein, Iowa, were opened on October 16.

Letters to the Editor

[The RAILWAY AGE welcomes letters from its readers and especially those containing constructive suggestions for improvements in the railway field. Short letters—about 250 words—are particularly appreciated.]

Unnecessary Transferring of Loaded Cars

NEW YORK.

TO THE EDITOR:

Referring to the articles in the September 17 and October 8 issues of the *Railway Age* on "Unnecessary Transferring of Loaded Cars." This question has been discussed for years and no real action taken to stop the large number of cars from being transferred. The remedy I would suggest is one that would cut down at least 50 per cent of the so-called transfers, if it could be put into effect.

It is not the fault of the car inspector who cuts out a loaded car for transfer that in his judgment is unsafe to run. Furthermore, I do not think any railroad today would stand for a vindictive car inspector cutting out cars unnecessarily. Our operating officials were greatly alarmed over the large number of cars that were being cut out for this purpose and wanted me personally to inspect cars at different points to see if the inspectors were justified in cutting them out. In almost all the cases I found the condition of the cars was such that the inspectors were justified in doing so. My greatest surprise was in many cases that the cars ever reached our terminals in such bad condition, being not only unsafe to run but unsafe for the lading.

I could go into considerable detail but will simply give the following figures taken recently from our records for a period of 30 days: Cars cut out numbered 803; of these 750 were foreign cars. Of these cars 157 were all-steel or steel underframe with defective underframes and sills. Of the remainder, 502 cars had wooden sills, broken draft timbers, burst ends, etc., and the balance of the defects were broken hoppers, bulged ends and defective trucks. A large percentage of the cars were of light construction and must have been in bad order when they were loaded.

The remedy is that no car should be loaded at a terminal that is not first inspected by a competent car inspector as to its fitness for the lading intended to be carried in it; it should also be inspected for the condition of the running parts.

Some few years ago the MCB Association proposed that all cars should be inspected and carded for the kind of lading they were intended to carry, but no final action was taken as it required the co-operation of the transportation department. If the railroads would take some action to this end it would soon bring out the fact that there are many thousands of cars not fit to carry ordinary freight unless they are repaired before loading.

It is true, as stated in the article in your September 17 issue that cars have been known to be transferred and sent back to the receiving line; that no repairs were made and the cars were again loaded with freight and sent forward by a different road. Many cases have been brought to our attention where we have been offered the same car on which no repairs had been made; these we have rejected and cut out the second time. Then again in some cases on the first transfer of the car it was loaded with grain and in such a condition that it could not be repaired; it was transferred and sent back to the receiving line, where it could be loaded with lumber or bricks and be safe for that class of lading.

The A. R. A. rules have defined what class of repairs

should be made to cars under load so as to save the expense of liability of damage to freight in transfer, but it is utterly impossible in many cases to carry out A. R. A. rules and make repairs to cars under load, and consequently transfers must be made to save delay.

Another point that should not be overlooked is that during federal control where cars were home on any railroad, we had a great many light capacity cars running over the system that never should have been allowed away from their home road. Until such time as the railroads can get their cars in first class condition and take more care in inspection before loading, we will continue to have numerous cases of transferring of loads. As suggested above, however, proper inspection of equipment before it is loaded will stop 50 per cent of the transfers.

F. W. BRAZIER.

Derails and the Stop-and-Proceed Rule

AUBURN, Cal.

TO THE EDITOR:

The *Railway Age* lately has published many arguments pro and con (mostly con) about the main track derail and the stop required at the stop-and-proceed automatic signal. But first let us look to the possible criticism that the signal men are doing all the talking.

With reference to the stop at automatic signals, at least one man who claims ample experience in the operating department has spoken in no uncertain terms. A. M. Burt, now assistant to the vice-president, operating department, Northern Pacific, in the issue of December 28, 1917, page 1158, wrote on this subject. Everyone interested should turn back and read his letter. In this connection after giving a number of reasons for abolishing the stop and proceed rule he said: "The stop and proceed indication should be put in the scrap heap, and in its place there should be a permissive indication. Under such a plan the three aspects of a permissive signal would be 'clear,' 'caution' and 'extreme caution.' No changes in present signals would be necessary."

"The efforts that have been made to pull the teeth of the 'stop and proceed' signal by using 'grade' or 'tonnage' permissive signals does not go far enough. The 'stop and proceed' signal should be done away with altogether, except possibly in some very unusual locations."

The two subjects pertaining to derails and stops at automatic signals may very well be discussed together because the main point in both cases is the observance of signal indications. Although the statistics called for by Mr. Rudd's series of unanswered questions in the issue of July 16, page 112, do not seem to be available, two things, I believe, are absolutely known: (1) That the derail sometimes derails a train which would have caused no damage if it had passed the stop signal—consequently there is a derailment when otherwise it would have been a case for discipline; (2) a derailment does not always prevent fouling of the "protected" track and a collision, if another train arrives at that time. The last point will recall the collision at Porter, Ind., last February, where the derail was only 311 ft. from the crossing. It must be admitted, however, that with the present customary distance of 500 ft. there is no certainty whatever that fouling of the "protected" track will never occur. Even without statistics, therefore, we seem fully justified in saying that the derail is an extremely crude and undependable device as a physical protection.

There remains, then, the "moral" effect—the old standby in defense of the derail. The belief (or it may have been a known fact) that the mere presence of derails had an important effect in enforcing observance of stop signals, dates back to the time when signal observance was possibly even more crude and undependable than is the physical protection

afforded by the derail. It is the writer's belief that this has all been changed by the general use of efficiency tests and the better understanding of signals in relation to safety which has grown up. If it were found that interlocking signals on a well conducted railroad, were better observed than block signals, there would still be a question as to how much credit should be given the derails for this condition. However, it appears that the general good observance of signals at the present time has made the "moral" effect of the derail so slight as to be far outweighed by its uncertain and unsatisfactory effect as a physical protection when a signal is disregarded.

The stop at an automatic signal has practically the same purpose as the derail. It is supposed to provide a certain physical protection in that, under ordinary conditions, a train is not likely to get as far above a safe speed in the block as it might if it entered without stopping. The stop also is supposed to have some influence as to the train proceeding through the block with caution. The stop itself is an observance of the signal and must be enforced by still other means; but the act of making a stop may be supposed to put the engineman in a frame of mind favorable to careful running in accordance with the rule, after the signal is passed.

As in the case of the derail, however, it is believed that present day signal observance is so good that any additional efficiency or protection due to the stop is too small to be considered. And, as in the case of the derail, the protection secured is crude and uncertain, depending as it does upon the weight of train, grade, etc., while the "moral" effect is probably even less certain than that of the derail. Indeed, it may well be that an engineman sometimes runs faster and less carefully after stopping than he would otherwise, because of his irritation at having to make what seems to be an unnecessary stop, his trouble in getting started again, and the resulting loss of time. The stop is, of course, a somewhat more definite thing, more easily checked than a prescribed limit of speed. There may be a tendency to take the easy course, make efficiency tests on the stop at automatic signals, and let it go at that. The important thing is the proper handling of the train in an obstructed block; and this is a matter for supervision quite as much as is observance of signals in other respects.

If the line of reasoning followed out above is correct, main track derails and the stops at automatic signals are unnecessary, and the derails are a possible cause of damage and death. Unnecessary things that impede operation or may cause "accidents" should be eliminated. It may be said, however, that there is at least one glaring weakness in this reasoning; that observance of signals is not so good and efficiency tests and other supervision are not so well carried out on some roads as on others. The answer is that the authorities now prescribing derails or, as in the case of the rules of the American Railway Association, throwing great weight on the stop at automatic signals, could do nothing better in the interest of safety than to prescribe the measures necessary to bring about the best attainable observance of signals.

C. C. ANTHONY.

A Chemist in a Freight Car

SCRANTON, Pa.

TO THE EDITOR:

Of the enormous total bill for loss and damage of freight on the railroads of the country—over 100 millions of dollars yearly—an appreciable percentage is due to large losses on merchandise which is damaged by coming in contact with chemicals and acids. Many carloads of sugar, flour, coffee and other similar commodities have been seriously damaged by being loaded into cars in which the floors were contaminated by various kinds of acids. In some cases not only

were the lower layers of bags eaten or damaged, but also those on the side of the car were eaten and the contents of the bags spilled over the floor.

Strong alkalis of which the drums have been broken open or leaked have produced similar results.

Machinery with parts nickel plated or galvanized have been badly corroded by the fumes of muriatic acid which had penetrated the floors. Rugs, carpets, cotton goods in rolls, etc., have been in many cases eaten 1 or 2 inches, thereby practically ruining the entire roll.

Cars which are contaminated with acid can be very easily detected. An acid car will in practically every case have the appearance of being oil-soaked or wet. Cars which are thoroughly dry or dusty have been found to be free of acid in nearly all cases. Blue litmus paper when placed in contact with acid will at once turn red; place a few drops of water upon the floor and lay the blue paper on the damp or wet place. In case the paper should not assume a reddish appearance red litmus paper should then be placed upon the floor. If the car is soaked with alkali the red paper will turn blue. Cars of this kind should be placarded "BAD ORDER," "ACID CAR" or "ALKALI CAR" and should in no case be used for loading any commodities which could be injured or damaged by acid.

If there is no reaction to either the blue or the red paper the car is probably contaminated with oil, and should not be used for sugar, coffee, flour, dry goods, etc.

Cars which are badly contaminated by acid need a new floor or a new lining. Where only slightly damaged the acid can be removed by washing well with a hose and sprinkling with baking soda.

On the Lackawanna, careful inspection for acids and alkalis has eliminated damage claims of this class.

Vegetables, such as potatoes, cabbage, onions, etc., have been found to be badly damaged on the lower layers when loaded in cars contaminated with salt. Great care should be exercised in the selection of cars for food stuffs and no cars should be loaded with these products which are contaminated with acids, alkalis or salt.

Covering the floor of the car with paper or sawdust will have little effect when the car is badly contaminated with acids or alkalis.

H. J. FORCE,

Chemist and Engineer of Tests, Delaware, Lackawanna & Western.

Bad Order Car Situation

NEW YORK.

TO THE EDITOR:

In your October 15 issue, under the caption of "Bad Order Car Situation Presents Serious Problem," M. J. Gormley, chairman of the Car Service Division of the American Railway Association, stated that on September 15, 1921, there were in the country 374,431 freight cars in bad order. This was divided, 183,486 box, 153,275 coal and 37,670 miscellaneous types, or 16 per cent of the total ownership. This should, based on liberal allowance, be not over about 160,000 cars or 7 per cent. In other words, we now have over 210,000 freight cars in bad order which, under proper conditions of maintenance, should be in good order.

Mr. Gormley further said that the problem now before the railroads is to repair these cars, replace with new cars those that cannot be economically repaired or rebuilt, and make other necessary additions to the equipment to take care of business up to the maximum of the past.

During the past two years I have had opportunity personally to examine many freight cars at various large terminal and heavy tonnage movement points in the territory lying east of Kansas City. Never in my 30 years of railroad experience have I seen freight cars generally in a more dilapidated condition, due to lack of proper upkeep. This

situation is the result of several years of improper distribution, handling and use of cars, coupled with the making of costly repeated light repairs to keep them moving, whether loaded or empty, instead of making the ultimately less expensive substantial repairs, renewals and improvements at the time needed, in order to keep them in sound, safe and economical working order.

The downward trend of the freight car situation commenced when the U. S. R. A. Circular No. 7, issued June 8, 1918, promulgated modified Rule No. 2 of the A. R. A. Code of Rules Governing the Condition of and Repairs to Freight Cars for the Interchange of Traffic. This changed the instructions in effect as follows: "Empty cars offered in interchange, if in safe and serviceable condition, *must be accepted*," was substituted for "Empty cars offered in interchange must be accepted if in safe and serviceable condition, *the receiving road to be the judge*." Also "Loaded cars offered in interchange (except those having defective safety appliances) *must be accepted* by the receiving line, which may either run, repair or transfer lading from car," was substituted for "Loaded cars offered in interchange must be accepted, *with the following exceptions*, (a) to (e) inclusive."

Following this modification the U. S. R. A. also suspended the use of M. C. B. defect cards for the period October 1, 1918, to May 14, 1919, thereby waiving any and all responsibility for defects for which the owners were not responsible during that period.

In addition, U. S. R. A. Circular No. 20 issued September 25, 1918 and revised November 25, 1918, established a limit of cost for making repairs to all wooden freight cars in need of general repairs. This stopped the making of repairs in kind, whenever the established limit cost was exceeded, regardless as to the variation of labor and material unit prices, and resulted in a large amount of deferred maintenance, or otherwise in the retirement of equipment which it would have been more economical to repair and continue in service.

The pooling of freight equipment, which was introduced during federal control, was partially abandoned about three months before the return of the roads to their owners, due to the fact that the cars had become badly scattered, from the standpoint of both the needs of traffic and of ownership, and the inadequacy of maintenance of the pooled equipment having become quite manifest during 1918. For example, when the roads were taken over on January 1, 1918, 44 per cent of the cars were on their home lines; when the roads were returned on March 1, 1920, only 21.9 per cent were on home lines. At the same time coal cars for loading on ownership lines in the East were held empty on foreign lines in the West; and box cars needed on ownership lines for loading in the West, were held empty on foreign lines in the East. Since then home cars have been gradually gotten back to the owner's lines and during the past six months' period—April 1 to September 30, 1921—the situation has averaged from 70 to 74 per cent ownership cars on home lines each month.

Until the cars reached their owners their general condition was not of much consequence, the principal idea being to keep them moving with the least delay and cost for upkeep. However, with the elimination of pooling and their return to home lines it has not required much of an inventory of their condition to determine their deferred maintenance condition.

A review of the foregoing will readily show why the railroads today have on their hands the 375,000 bad order freight cars referred to by Mr. Gormley.

My observations have led me to believe that the freight car situation offers one of the most costly propositions that the railroads are up against, both from a capital and operating expense standpoint, and that the cause for this is the lack of proper upkeep and the misuse of equipment during the federal control period; the neglect of preservation and resulting deterioration of metal in the car bodies and underframes

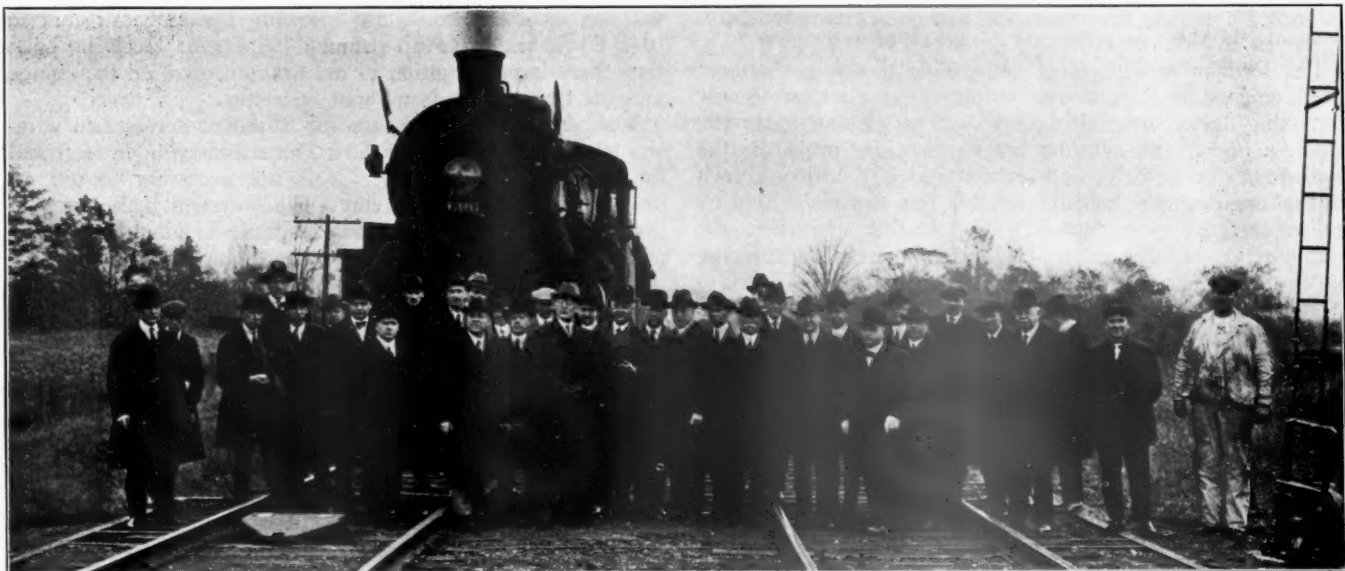
due to corrosion, and the damage to underframes and superstructures because of deficient and defective draft gear and attachments. This latter item is something that is giving all of the railroads a great deal of concern, as when, for example in all-steel equipment, the strength of the underframes is reduced through corrosion of the floor and other plates. If the cars are permitted to run without any cushioning resistance for the buffing and pulling shocks, it does not require much rough yard handling or heavy train service to destroy the center sill and underframe structure, more particularly between the body bolsters and end sills. The fact that cars have been permitted to run without proper draft gear renewals and maintenance during the federal control period, and which practice is being continued at the present time, is due largely to the re-establishment by the U. S. R. A., and by various representative railroads, of the long since discarded transverse key type of coupler and coupler yoke connection, which couples the coupler with the center sills and enables the running of cars in road service without draft gear.

It can be readily understood what shocks the underframes of cars are subjected to, both buffing and pulling, when they are operated in this condition. Until the A. R. A. eliminates the use of such a device and restores the use of an arrangement which *couples the coupler to the draft gear only*, and requires the maintenance of the latter, the existing conditions will not only continue but become more aggravated. The use of the coupler center sill key attachment is also resulting in extraordinary damage to couplers. Even the latest A. R. A. heavy "D" type couplers have been found with not only various parts cracked and broken, but also with the shanks between the coupler head and the butt stoved up as much as from $\frac{5}{8}$ in. to 1 in., due to extraordinary buffing shocks in combination with being run without draft gear in proper condition. Furthermore, the neglect to maintain draft gear and attachments, in combination with the many useless so-called "friction" types of draft gears that have been applied during the past 20 years, is responsible for much extraordinary center and end sill, draft arm and lug, body bolster, coupler and coupler yoke damage that otherwise would not have occurred.

The modern freight car with its increasing ton-miles per day's work, in longer and heavier trains, requires *actual* maintenance to keep it in serviceable condition and the issuance of instructions to reduce the number of cars in bad order condition so that they will not exceed 4 per cent of the total; the establishment of a freight car depreciation account in the maintenance of equipment expenses to provide money for an equipment reserve fund, which money should properly be put into applied labor and material for the upkeep of existing equipment; the application to cars of defect cards to cover repairs needed for which the owners are not responsible will never take the place of needed actual repair and renewal work on existing equipment.

The Interstate Commerce Commission—Account 315—Freight Train Cars—Depreciation figures for the Class I roads under federal control in 1918 show an amount of \$61,722,302 as compared with a total expense of \$384,507,575 for Account 314—Freight Train Cars Repairs. The expenditure of the amount charged to depreciation in these maintenance of equipment expenses for actual labor and material for upkeep, would have done much to overcome the present freight car condition. JOHN E. MUHLFELD.

PAUL HUEBNER, landscape gardener of the Philadelphia & Reading, has this month completed 31 years of service with the road. He has in charge 200 flower beds at 110 different points on the system. Along the right of way he has 5,000 evergreens and many miles of hedge. About 150,000 plants are used each year in the beds.



Visitors at Automatic Train Control Demonstration, Near Rochester, N. Y.

Automatic Train Control Demonstrated on B., R. & P.

Test of System in Which No Physical Contact Is Made Between Engine Apparatus and Roadway

A DEMONSTRATION and test of an automatic train control device, which has been developed by the General Railway Signal Company, was made on October 24 on the Buffalo, Rochester & Pittsburgh, near Rochester, N. Y., before a party of railroad men and others interested in safety developments. A locomotive equipped



G. R. S. Automatic Train Control—Track Member

with the control instruments and one car was used in the experiment which was conducted between Rochester and Scottsville, 12 miles south, the track elements being placed at certain automatic signal locations between these stations. Caution, stop and clear signal indications were given and the train was operated at various speeds in both directions, the apparatus acting to stop the train when a caution or stop indication was received. The engineman and fireman, acting in conjunction, can prevent the application of the brakes by devices installed on the engine for this purpose.

The train control apparatus as developed by this company

is of the intermittent contact type, using an inert or non-acting roadside element and is so designed as to cause the automatic application of the brakes on a moving train in case the right action is not taken by the engineman in passing a caution signal. The device is developed to work in conjunction with the automatic block signal system and to supplement the visual signal indications. The apparatus, which is the result of development work extending over a number of years, is of a simple and rugged type and can be easily and quickly installed.

As here installed the device operates in connection with the caution indication as well as the stop indication; but if the engineman is alert he can prevent the operation of the stop and the control of the train is thus left in his hands without automatic interference.

The Track Equipment

The track equipment consists of a laminated iron structure about 5 in. high and 2 ft. across made in the form of a wide, shallow letter U, with large pole pieces resting on the top of each leg of the U. The top surfaces of these pole pieces are level with the top of the rail. On each of the legs is a coil of insulated wire, the coils being connected together and in turn connected through a contact of the signal relays. If the block ahead is occupied and the track relay open, the circuit to the track element is opened and this puts it in a position to stop a train. When the block is unoccupied and this circuit is closed, the apparatus is in condition to allow a train to proceed.

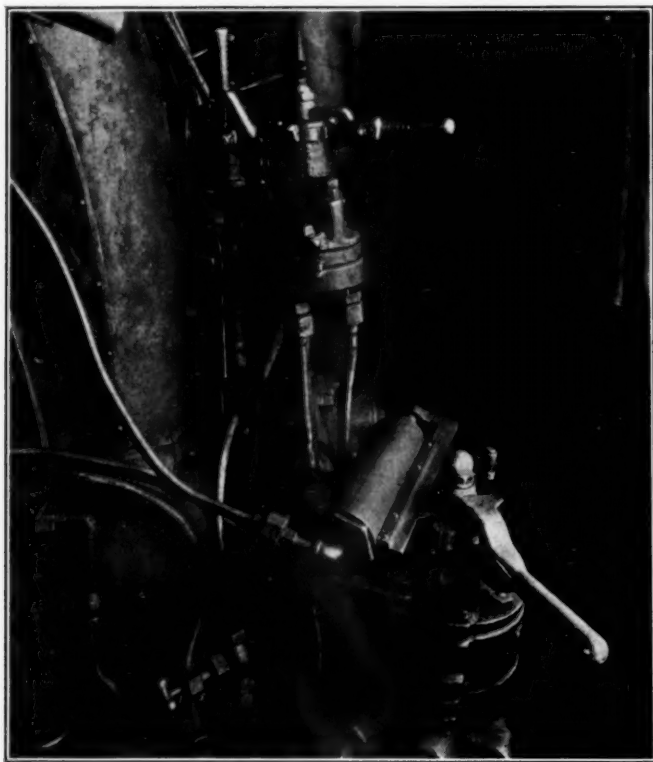
Engine Equipment

The track equipment is protected from things dragging and all mechanical injury by a housing or shell resembling somewhat in appearance the back of a turtle. One of these roadside elements is located at each visual signal. It has no moving parts and the construction is such that even if submerged in water or covered with snow, ice, earth, or anything its proper performance is not affected. It is placed between

the rails, avoiding the clearance problems connected with structures outside the rails.

The locomotive equipment consists of a storage battery; a receiving element; an audion amplifier; an electro-magnetic contacting device, or engine relay; and an electro-pneumatic valve; a piston and cylinder arrangement for operating the engineman's brake valve and certain auxiliary devices known as the engineman's hold-by device, the firemen's hold-by device and the reset button. The audion amplifier, the engine relay and the electro-pneumatic valve constitute the translating apparatus that converts an electric impulse into a powerful mechanical force.

The receiving element on the engine consists of a U-shaped laminated iron structure, similar to the one fixed on the track, except that it is inverted. The lower surface of the pole pieces move directly over, and pass from three to four inches above the tops of the pole pieces on the track. Each of the vertical legs of the engine equipment carries a coil of insulated wire. One of these coils is supplied with energy from a storage battery placed in a box located con-



G. R. S. Automatic Train Control—Brake Valve Attachment

veniently on the engine, thereby producing a strong magnetic field. The other coil is connected with the battery and to the translating apparatus in such a way as to keep air pressure on the brake-operating cylinder, which in turn leaves the brake handle free to be put in any position by the engineman.

Whenever the engine equipment passes over a track element while a stop condition exists, the magnetic field, which is produced as previously described, will pass down to, across and up from the track equipment, producing a magnetic flux through the other leg of the engine equipment, thereby producing an electrical impulse in its receiving coil. This impulse in the receiving coil is then converted by the translating apparatus to a power that will cause the operating cylinder to actuate the brake lever, pushing it over to the same position that the engineman would have pushed it if he had intended to stop the train.

In case, however, the circuit to the track equipment is closed, as the train passes, the coils on the track element

will act as choke coils, not allowing the magnetic flux to pass down and pass up through the engine receiving coil; thus there is no actuation of the brake control on the engine and the train proceeds without restriction.

The audion amplifier, familiar to those interested in wireless telegraphy, is a simple device for magnifying an electrical impulse. With this device it is not necessary to use an unduly sensitive engine relay. This system makes use of the regular air brake equipment, simply moving the engineman's brake handle in exactly the same way that an engineman would move it in stopping the train. A strong pressure is maintained on the brake lever until the reset button, on the outside of the locomotive, is operated; this relieves pressure and restores the brake apparatus to normal condition.

In the development of this device the General Railway Signal Company has not interfered with the requirement that the engineman observe all signals, nor has it encouraged him to relax vigilance. Anything which might tend to make him careless in this respect would be a step backward. A device is, therefore, provided for the engineman in the cab which, if operated in due season as each caution signal is passed, will prevent automatic application of the brakes. If the engineman does not act, the train will be caused to make an unnecessary stop; and either the engineman or the fireman must then get out of the cab and operate the reset button to release the brake handle so that the train may again proceed. This naturally will prove to be a strong incentive to the engineman to watch the caution signal, so that he may avoid the discredit of having the train stop improperly and of having to get out to reset the apparatus. It is optional with the road to require both the engineman and the fireman to operate the reset apparatus simultaneously. With this arrangement the responsibility for taking appropriate action in passing a caution signal is put upon two men instead of one. This is in line with the present rule on most roads that the fireman shall call the signals to the engineman.

This type of train control does not require other energy than that already in existence in connection with automatic block signals. The roadside element requires no battery or other source of electrical energy for its operation, hence the name "inert track element." The only source of energy used is in connection with the engine apparatus, namely, the storage battery carried on the engine.

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Photo from International

Placarding the First American Relief Train to Enter Russia

Labor Board Opens Inquiry Into Threatened Strike

Brotherhood Leaders and Executives Before Board—Employees
on Several Roads Against Strike

THE RAILROAD LABOR BOARD'S attempt to avert the threatened strike of train service employees set for October 30, reached its climax, when, in response to a call issued by the Board, the general chairmen representing the train service employees and telegraphers on all of the larger carriers, executives of the train service brotherhoods and the telegraphers organization, and executives or representatives of the various Class I carriers came before the Board on October 26. Because of the large number of interested parties present at the hearing it was necessary to obtain the use of the Coliseum Annex for the meeting and even this large meeting room was crowded.

After considerable time had been taken up with the roll call which showed that whereas representatives of almost every railroad were present but few of the general chairmen called by the Board put in their appearance, the meeting was opened with the reading of a statement by R. M. Barton, chairman of the Board, which outlined the nature of the hearing, the testimony which the Board would deem relevant, and the reasons for the calling of the meeting.

Mr. Barton said in part:

Chairman Barton Opens Meeting

This proceeding is not a case brought to the Board by either employee or carrier, but one initiated by the Board on its own motion, it being principally moved thereto by the threatened interruption to commerce. It is an official governmental inquiry ordered and to be conducted by the Board. It is based on two provisions of the Transportation Act. One, Section 313, which provides that when the Board has reason to believe that any decision by the Board has been violated by any carrier or employee or subordinate official or organization thereof, it may, on its own motion, after due notice and hearing to all persons directly interested in such violation, determine whether in its opinion such violation has occurred and make public its decisions in such manner as it may determine. The other is the provision in Section 307, the emergency provision, which authorized the Board to act when a dispute is likely to substantially interrupt commerce.

The Board wishes all parties to bear these things clearly in mind and thoroughly understand the limits of this inquiry and conform thereto. The inquiry will be conducted wholly under the directions of the Board, as it is not a suit or application of either of the parties.

Defines Scope of Hearing

On the first point, whether there is a threatened withdrawal from service of the several carriers in opposition to and in violation of Decision No. 147 and whether the parties have violated or are violating this decision and the law; the inquiry will be limited strictly to this question.

The merits of that decision or any other decision of the Board are not at this time in question and no discussion in regard thereto will be in order. The question is simply: Has there been a violation or is one threatened?

On the second subject of inquiry as to what other causes exist that are causing or liable to cause an interruption of traffic, the inquiry will be what either side has done or is doing or threatening to do that may lead to a stoppage of work, and, particularly, the nature of the exchange of proposals that occurred between the railway executives and the executives of the labor organizations at their conference at Chicago, October 14, 1921; what disputes resulted therefrom, and to what extent said disputes are the occasion of the threatened interruption. The Board will further inquire as to what, if any, wage reductions have been made or are in contemplation by the carriers without first securing the approval of this Board in a legal way.

The inquiry on behalf of the Board will be conducted by the chairman of the judiciary committee, Ben W. Hooper, but questions will be permitted by other members of the Board and either party or their representatives or any of the representatives of any of the parties directly interested may be allowed to ask questions and make statements that may bring out the real facts on the issues above indicated.

W. G. Lee Questioned

After this outline, B. W. Hooper, a member of the public group of the Board began a quiz of W. G. Lee, president of the Brotherhood of Railway Trainmen, by a series of questions regarding identity, etc., and culminating in a request for a definite statement of the developments which led to the strike vote and orders and concerning the position of the organizations now regarding the threatened strike. In reply Mr. Lee outlined his view of the manner in which the present controversy developed the facts recited by Mr. Lee have in general been described in previous issues of the *Railway Age*. Coming to the actual preparation of the strike ballots in accordance with the resolutions adopted by those representing the men, Mr. Lee described in detail the reasons for his refusal to join with the other four train service organizations in a joint ballot because of the fact that the ballot they proposed contained a reference to "questions" he did not believe were involved.

"For once," he said, "I decided I was going to tell the men the truth. I didn't intend to camouflage the east. Let criticism fall where it may."

Leading questions from Mr. Hooper brought out the fact that the difference between the trainmen's ballot and that of the other organizations was in the statement of grievances over which the strike vote was taken. Mr. Lee frankly admitted that in his opinion the only grievance over which the men could strike at this time was the wage reduction ordered by the Labor Board in Decision No. 147. There followed a detailed description of how the trainmen's organization prepared the ballots, took the strike vote and counted the returns. The result, Mr. Lee said showed that 88 per cent of his organization preferred to strike rather than to work under the rates of pay fixed by the board. In presenting these figures Mr. Lee admitted that the two-thirds majority of strike votes had not been recorded for some carriers. As such carriers, he named the Belt Railway of Chicago, the Chicago & Western Indiana, the Chicago Junction, the Chicago River & Indiana, the Toledo, Peoria & Western, the Elgin, Joliet & Eastern, the Indianapolis Union, the Louisville & Jeffersonville Bridge, the Pennsylvania Lines East, the Pittsburgh & Lake Erie, the East St. Louis Connecting, the Lake Erie & Eastern, the Wiggins Ferry Company and the Central Indiana.

L. E. Shepard listed the following roads on which the necessary majority of the conductors failed to ratify the proposed strike: Bangor & Aroostook; Boston & Maine; Central of New Jersey; Cincinnati Northern; Detroit & Mackinac; Evansville, Indianapolis & Terre Haute; New York, Susquehanna & Western; Peoria & Pekin Union; Toledo, Peoria & Western; Zanesville & Western; Dayton & Union; Pennsylvania, Lines East and West; Pittsburgh & Lake Erie; Duluth & Iron Range; Duluth, Missabe & Northern; Philadelphia & Reading; Duluth, South Shore & Atlantic; St. Louis Terminal Association; Peoria Railway Terminal; Texas Midland; Trinity & Brazos Valley; and Arizona & Eastern. Mr. Carter listed the Pittsburgh & Lake Erie, the Duluth & Iron Range and the Indiana Central as the lines on which the firemen voted not to strike.

To show the manner in which the trainmen had been presented with the facts prior to and after the vote, Mr. Lee read portions of circulars sent to the membership in which warning to the men concerning the folly of a strike at this time was but thinly veiled. Reverting again to the difference

between the trainmen's ballot and the joint ballot of the other organizations, Mr. Lee said in reply to his questioners:

"I believe that we should incorporate in the ballot a statement showing the different conditions existing today. In the old days, we reported the result of a ballot to the officers of the roads and negotiations were begun anew. I believe that we should call attention to the difference now that the federal law was in effect and that we did not go back to the officers, saying that we were voting on the question of accepting or rejecting the wage cut of the Board. Time-and-one-half for overtime and future wage reductions were not considered."

Afternoon Session

The afternoon session opened with Mr. Hooper still interrogating Mr. Lee and attempting to establish that the inclusion of references to future wage cuts and overtime changes in the statement accompanying the trainmen's ballot was for the purpose of influencing the men to vote for a strike. Mr. Lee's reply was vague, frequent references being made to other sections of the statement which he said "murdered" these references. The quiz of Mr. Lee closed with a discussion of his power to call off the strike on the International & Great Northern. After giving a history of his part in this walkout, Lee denied that he has the power to call off the strike or could have prevented it.

The examination of Mr. Lee developed the fact that (1) the strike of the trainmen is in the hands of the men because of the manner in which the developments have been handled by him, in other words he has passed the buck to the men after giving them the best advice possible under the circumstances; (2) the trainmen's strike is solely a protest against the wage cut of last July and (3) only "satisfactory settlement" can bring about a recall of the strike orders.

L. E. Sheppard on Stand

L. E. Sheppard, president of the Order of Railway Conductors followed on the stand, opening his testimony with an outline of the laws of his organization regarding the strike. The vote polled by the conductors, Mr. Sheppard said, showed that 68 per cent of the men in eastern territory voted to reject the wage cut, 88 in southern territory and 87 in western territory. In support of his argument that there are other questions over which the men might strike, Mr. Sheppard charged that 19 carriers had filed applications with the Board for general revisions of schedules with the conductors, 54 for partial revision of the schedules, including the abolition of time-and-one-half for overtime, 12 for elimination of punitive overtime and 25 for material changes in the schedules. As with Mr. Lee, Mr. Hooper by skillful questions tried to bring out the fact that statements regarding overtime and future wage cuts were included in the strike ballots to influence the men. At one point, Mr. Hooper asked Mr. Sheppard if he thought it was fair to ask the carriers to make a promise to ask for no further wage cuts when relevant factors cited in the Transportation Act are changing so rapidly. To this question Mr. Sheppard replied that they were merely following precedent in so doing. Changes in wages or working conditions usually stand for at least one year he said. Mr. Hooper asked Mr. Sheppard if it was not unfair to "place an 'inflammatory' statement" in the statement accompanying the ballot. Mr. Sheppard took exception to the terms used and said, "Some of the men probably did not read the statement with the ballot."

W. S. Stone Has Argument

W. S. Stone, chief of the Brotherhood of Locomotive Engineers followed on the stand but at the start of his testimony, he was interrupted by Judge Barton on the grounds that his remarks were not relevant to the case. Mr. Stone wanted to submit a list of roads that he alleged had violated orders of the Labor Board but upon being stopped by Judge Barton said, "I will bow to your decision. If we cannot find redress in this Board I want to know where 80,000 engineers

can find relief. If I am prohibited from explaining the feelings of our men, then I do not see that there is anything more for me to say." Mr. Stone then refused to give the Board a list of the roads whose engineers had failed to poll a two-thirds strike majority, but upon the specific request of W. L. McMenimen a member of the labor group on the Board, promised to file the list later.

T. C. Cashen president of the Switchmen's Union of North America then told the Board that 85 per cent of his members had voted to strike and that a constitutional majority was polled on every carrier party to the dispute.

W. S. Carter Questioned

W. S. Carter, head of the Brotherhood of Locomotive Firemen and Enginemen, the next witness examined, told the Board that if the strike was to be called off, it would be necessary in his organization to take another referendum. Questions by Mr. Hooper were similar to those asked the other labor leaders and to a large extent the answers were similar. Employees on three roads, Mr. Carter said had voted to accept the lower wage scales.

Real Climax of Hearing

The real climax of the hearing came at the close of the afternoon session when Chairman Barton asked each of the five leaders to answer four vital questions. They were in substance: (1) What organization or individual can call off a strike? (2) Suppose you as the executive of a labor organization or your executive committee issued an order or a statement that the strike would not occur what would the men do? (3) If this board issued an order stating that the strike is not justified, would the men obey the order? and (4) If the Board declared a strike unjustified will you use all your power and efforts to see that it is obeyed?

The answer of the labor leaders spelled failure of the effort of Board if they accurately represent the feeling of the men. To the first question all answered that power lies either in their hands or in the executive committee or both. The second question brought forth the reply that if an order is so issued it would have little or no effect on the strike. The third question brought either an evasion or a statement that such an order would not be obeyed by the men. The fourth question likewise was either evaded or the statement was frankly made that the leaders would not co-operate unless a "satisfactory settlement was reached."

Executives Quizzed at Evening Session

The evening session was devoted to a quiz of the executives. It was opened by Thomas De Witt Cuyler, chairman of the Association of Railway Executives, who presented a statement reviewing the development of the present controversy and the action taken by the executives. In reply to a question asked by Mr. Hooper, Mr. Cuyler stated that it was not the purpose of any carrier to make reductions in wages without first holding conferences with the men and submitting the case to the Board for ruling. Mr. Hooper then brought out by a series of questions, directed at the executives in general, the actual position of the roads at the present time and their willingness to abide by rulings of the board.

Mr. Stone was finally allowed to read a list of 33 roads which he charged had violated the Board's orders in reducing wages without sanction, but the roads proved to be all short lines, many of which were not parties to the case. Answers were made on behalf of three of these roads. In each case the statement showed the willingness of the carrier to obey the Board's orders.

The case was finally brought to a sudden close with the announcement by the chairman of a probable decision within the next few days.

Board Confers Previous to Meeting

Previous to the opening of the meeting, members of the Board conferred with representatives of the employees and

of the carriers as to the procedure to be followed. Subsequently two statements were issued, one by the Board and the other by T. De Witt Cuyler, chairman of the Association of Railway Executives. The Board's announcement practically set forth its views as to the present situation and the disclosure of the compromise plan which it believed might meet the irreducible demands of the brotherhood chiefs.

Attributed to Mr. Hooper, the statement says in part:

1. Friction has arisen between practically all the Class I carriers of the United States and their train and engine employees and telegraphers represented by the following organizations:

Brotherhood of Locomotive Engineers, Brotherhood of Locomotive Firemen and Enginemen, Brotherhood of Railroad Train-



From the Birmingham Age-Herald

Cold Iron

men, Order of Railway Conductors, Switchmen's Union of North America, Order of Railway Telegraphers.

2. One of the principal causes of this trouble lies in the fact that said carriers have notified certain of the executives of said organizations that it is the purpose of the carriers to apply to the Labor Board for a further reduction in wages additional to that ordered July 1, 1921.

3. The proper consideration of the conditions surrounding the matters now pending before the Labor Board should remove any immediate occasion for strike between the carriers and said organizations of employees growing out of a possible reduction in wages by the Labor Board. The conditions referred to are as follows:

Since the organization of the Board a little more than 18 months ago more than 2,000 cases involving disputes between carriers and employees have been filed with the Board. More than 700 of these disputes have been disposed of and many others have been heard and not decided. The Board has been deluged with cases involving minor grievances which would not have been sent here to congest its dockets had the carriers and their employees co-operated in the establishment of adjustment boards as provided in the Transportation Act.

Three questions of paramount importance have been before the Board, the wage increase of 1920, the wage reduction of 1921, and the adoption of new rules and working conditions. Each of these matters has necessarily consumed a great amount of time. Each of them involved all the Class I carriers and every individual of every class of their employees in the United States.

The two wage controversies have been disposed of, but during the entire pendency of both, the revision of rules and working conditions have been pending and is now only well begun. The Board has been justly urged by the carriers to complete its consideration of the rules and hand down its decision. The Board's unavoidable delay in disposing of this question has subjected it to criticism by the public and restive complaint upon the part of the carriers.

Defines Board's Position

The Board has heretofore issued two decisions embracing shop craft rules. The remainder of the shop craft rules are still pending and the disputed rules of other classes of employees have not yet been touched.

No more difficult and complex question can ever arise before this Board than that of the revision of the rules governing the working conditions of any class of railway employees. It requires an immense amount of time and painstaking work. It is the judgment of the Board that, as a matter of procedure it would be unwise, and as a matter of policy, unjust, to discontinue the consideration of rules and working conditions and enter into a prolonged hearing of an application to reduce wages at this time.

It is not within the province of the Labor Board to shut the door in the face of either carrier or employee desiring to submit a dispute to the Board, or to dictate the time when such dispute shall be fixed. It is, however, within the discretion of the Board to fix the order in which it will take up and consider the numerous matters submitted to it.

In this aspect of the matter, it should be of material help to the carriers and their employees to understand that the status of the Board's work, as above set out and its plans with regard thereto.

It will thus become apparent that the employees, who are protesting against a further wage cut, are crossing bridges long before they can possibly get to them and that carriers cannot hasten a wage reduction by applying for it at this time.

The attitude of the Board in this matter must not be misunderstood. It is not affected by the threat of a strike. It had adopted



From the Memphis Commercial Appeal

The "Vaudevillians!"

several weeks ago the policy of making everything else secondary to the consideration of the controversies over rules and working conditions, but, with the ordinary number of unavoidable digressions, and even with the greatest diligence, it will require considerable time to complete the decision of rules.

Another factor that demands the highest consideration is the fact recognized by both carriers and employees that the questions of wages and working rules are inextricably interwoven. Many of the rules and working conditions governing the employees have a money value and it would be difficult to give satisfactory consideration to the question of wages until the rules and working conditions to which the wages would apply are definitely fixed and known.

In view of the foregoing considerations, it is the purpose of

the Labor Board that the submissions of carriers and employees on rules and working conditions shall be completely disposed of as to any particular class of employees before a hearing is had on any question of wages affecting said class of employees on any carrier covered by Decision No. 147.

The rules governing any class of employees will be deemed to have been completely disposed of when the Board has passed upon all the submissions affecting said class either by a decision of disputed rules or by referring them back to a conference of the carrier and employees.

Dispute Is With Board

The statement of Mr. Cuyler, issued immediately after, said in part:

The railroad executives are not aware of any present dispute between them and their employees. The strike vote and order is solely against a decision of the Railroad Labor Board reducing wages by 12 per cent as of last July 1.

The railroads have in fact determined to seek to reduce rates, and as a means to that end, to further reduce wages. But the carriers have expressly decided to proceed in accordance with the law requiring conferences with employees prior to taking such action, and to put no such reduction in wages into effect until it has been passed on by the Railroad Labor Board.

Any proposal to strike, therefore, is purely concerning a past decision of the Labor Board or against what the Railroad Labor Board might do.

The railroads wish it to be clearly understood that they would deprecate a strike, but that their first obligation is to the public to render adequate service at reasonable rates. Present rates are in many cases high and steps must be taken to reduce them. That reduction can only be effected by reducing costs, and of the costs by far the largest element is the wages of labor.

The issue is very clear. If present wages are to be continued, rates cannot be reduced. If rates are to be reduced, the present wages cannot be paid. The railroads are powerless to take any other position.

Labor Board's First Effort at Mediation Fails

The events preceding this meeting and following the close of the report in last week's *Railway Age* are many and significant and may be summarized as follows:

The conference between members of the Railroad Labor Board and leaders of the five train service organizations which have issued strike orders, the call for which was reported in the *Railway Age* of October 22 (page 758), proved a complete failure. Representatives of the brotherhood, on leaving the conference, stated that the Labor Board had offered them no definite plan for the settlement of the controversy, and that consequently they were unable to take any action toward calling off the scheduled walkout. Members of the Board likewise stated that little had been achieved at the meeting except a "frank interchange of views."

Following the conference the brotherhood leaders again returned to Cleveland, where they divided their time between working on strike plans and issuing statements justifying their position in so far as it can be justified with nothing but a comparatively small cut in basic wages against which to strike.

"With regard to the position of the employees at this time," Warren S. Stone, grand chief of the Brotherhood of Locomotive Engineers, said in one of these statements, "I can only say that their representatives are patiently waiting for any development that would appear to offer a solution."

"We are not now nor have we been desirous of being a party to precipitating a strike, but when it is quite apparent that the railroads propose not only to reduce wages, but to take from the employees practically all the conditions of service that have been obtained for many years, and the Railroad Labor Board is unable or fails to give us any assurance that the interests of the employees will be protected from such onslaught of the interests that control the transportation lines of our country, nothing is left for our employees but to stand upon their constitutional rights and retire from the service of these carriers."

Concerning these charges, R. M. Barton, chairman of the

Board and representative of the public group, said that he is "willing to let the public decide who is to blame if there is a strike."

"But," he added, "you may say this for me, as emphatically as you wish: Whether the Labor Board is to be blamed for anything or not, these men cannot justify their action on that ground. They can't thus excuse their throwing the country into such a terrific industrial crisis as a general railroad strike will bring about."

Ten Organizations Decide to Withhold Strike Orders

The following days witnessed the withdrawal one by one of ten of the units in the "associated standard recognized railroad labor organizations." The latest reports indicate that the various railroad unions have aligned as follows:

The Brotherhood of Railroad Trainmen, the Brotherhood of Locomotive Engineers, the Brotherhood of Locomotive Firemen and Enginemen, the Order of Railway Conductors, the Switchmen's Union of North America and the Order of Railroad Telegraphers have announced their intention to strike or have issued strike orders.

The six organizations comprising the Federated Shop Crafts, the United Brotherhood of Maintenance of Way Employees and Railroad Shop Laborers, the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, the Brotherhood of Railroad Signalmen of America, the Brotherhood of Stationary Firemen and Oilers have indicated their intention to await further action by the Labor Board before actually calling their memberships out.

In this connection an announcement by the Federated Shop Crafts said in part:

"It develops that the four transportation organizations would not be bound to strike after they had received a settlement acceptable to them, even though those who had assisted them in making their strike successful had received no settlement and were still on strike."

"It must therefore be clearly evident to all the the membership of any of the four transportation organizations on any railroad, cannot and will not co-operate with any other class of employees. The above are indisputable facts, and the membership of the Federated Shops Crafts are entitled to know these facts."

"There is no hope for co-operation with the four transportation organizations. Therefore the Shops Crafts must outline and adhere to their own plan of action in so far as those organizations are concerned. It is recommended that the Shops Crafts await rulings by the Labor Board on general working rules, decision on which has been withheld."

Telegraphers to Walk Out

The most unexpected development was the announcement by E. J. Manion, president of the Order of Railroad Telegraphers, that his organization would walk out in conjunction with the brotherhoods, following the same program as to the roads designated in the various groups. Up to that time it had been expected that the eleven "standard" unions, which recently split with the "big five" brotherhoods, would act in unison in whatever course was decided upon.

"Our general chairmen have concluded their deliberations," Mr. Manion said, "and are returning to their respective headquarters to complete their preparations for making the strike effective on the same railroads and dates named in the strike order of the other transportation organizations."

Labor Board's Call to October 26 Conference

Closely following these developments came the order of the Labor Board for the conference which began on October 26. The Board's order said in part:

Whereas, it has come to the knowledge of the United States

Railroad Labor Board that a dispute exists between carriers and organizations of their employees; and,

Whereas, information has come to this board that a conference was held in Chicago on the fourteenth day of October, 1921, between certain of the executives of said carriers, and certain executives of said organizations of said employees, relative to the matters in dispute, at which conference no agreement was reached; and,

Whereas, immediately following said conference it was announced through the public press that the executives of said organizations of railway employees had issued and sent out to the members thereof orders or written authorities to strike, and that a strike vote had been taken on the lines of the said carriers; and,

Whereas, the board's information is to the effect that said strike is threatened on two grounds: First, in opposition to the wage award in decision No. 147 of the board, and, second, on account of an unsettled dispute both as to wages and working conditions; *be it therefore*,

Resolved, by the United States Railroad Labor Board:

1. That, in so far as this threatened strike is in opposition to and in violation of decision No. 147 of this board, the said labor organizations on each of said carriers be and are hereby cited to appear before this board for hearing as to the question whether or not they have violated, or are violating, decision No. 147, and,

2. That in so far as said threatened strike is the result of a dispute between said carriers and their organizations of employees concerning wages and rules and working conditions, this board hereby assumes jurisdiction of said dispute on the statutory ground that it "is likely substantially to interrupt commerce," and said carriers and said organizations of employees are hereby cited to appear before this board at Chicago, Ill., for the hearing of said dispute.

Be it further resolved that both parties to said dispute are hereby directed to maintain the status quo on the properties of the said carriers until said hearing and decision.

Brotherhood Leaders Meet

Interest shifted from the Labor Board to a meeting of the Brotherhood chiefs and their respective chairmen on October 27. The situation on October 27 was substantially as follows: the inquiry conducted by the Labor Board on October 26, developed that with the exception of the trainmen, a strike has been voted for and ordered as a protest against the July wage reduction, against the announcement of the carriers that further wage decreases are to be sought and

against the proposed efforts of the railroads to bring about the abolition of punitive overtime. The trainmen's strike is based wholly on the July wage reduction.

A statement of the Board made on October 25, stated definitely that no further reductions for any group of any employees would be considered by the Board until rules and working conditions for that group were disposed of. As to overtime pay, the Board pointed out that in cases of the shop crafts rules already promulgated, overtime provisions were retained to a large extent. Furthermore, Mr. Cuyler had informed the Board that none of the carriers had any intention of making further changes in wages or working conditions without submitting controversies to the Board. These facts are pointed out as constituting what might be taken as a "satisfactory settlement" by the leaders of the labor organizations.

International & Great Northern Trainmen Strike

TRAINMEN on the International & Great Northern, members of the Brotherhood of Railway Trainmen, went on strike on October 22 as the widely heralded "opening gun" of the threatened national walkout. The strike was put into effect despite instructions from the Labor Board ordering the men to remain at their posts until after the meeting between the union leaders and railroad chiefs in Chicago on October 26. The walkout of the men was quiet and without any demonstration. Union men who were on trains when the strike became effective had received instructions to finish their runs before walking out.

Referring to the strike W. G. Lee, president of the Brotherhood of Railroad Trainmen, said:

"The men and committee of the brotherhood on that railroad have voted to withdraw from the service, and authority, as vested in our constitution has been given them. The matter is entirely out of my hands."



From the Chicago News

Preparing for the Big Railroad Strike Melodrama

With reference to the progress of the strike on the International & Great Northern, Thornwell Fay, executive officer for the receiver has advised the *Railway Age* in response to a telegram as follows:

Strike trainmen took place noon Saturday 22. Every passenger train on road has been operating on schedule since strike. Did not attempt to operate freights until Monday when we operated freights on every division and increased number on Tuesday and further increase today (Wednesday). Also doing considerable switching. Every point conditions improving daily. Trainmen demanded that we restore wages in effect June 30, 1920, hence strike is against Labor Board, which should have publicly denounced this strike as being against its orders and against the law, but am not advised that they took any action whatever about this particular strike.

Mr. Lee Asked About I. & G. N. Walkout

Action by the Labor Board was taken at the Chicago meeting on Thursday, when Mr. Lee, president of the Brotherhood of Railway Trainmen was asked about the strike on this road in connection with his other testimony. Mr. Lee read telegrams explaining that the Texas men voted to quit work in advance and by so doing forfeited their right to general strike benefits. Mr. Lee was asked by Mr. Hooper: "What action was taken to hold the men in service in accordance with the Board's order to preserve the status quo?" "None whatever," was Mr. Lee's reply. Mr. Hooper continued, "You understood there was to be no strike on any road until after this hearing?" In reply to this question, Mr. Lee said, "I understood that was the intention of this Board, and of course, we had our own ideas as to just how far this Board's intention was binding on us."

Pennsylvania Again Before Labor Board

IN RESPONSE to a call issued by the Railroad Labor Board the Pennsylvania Railroad appeared before the Board on October 20 and again outlined its views of the Board's jurisdiction and explained its action in carrying on its own negotiations with its employees regardless of the Board's instructions as to the procedure to be followed. Representatives of the carrier told the Board in part that:

1. The carrier has informed the Board in its several pleadings filed in this case that it could not accept as a lawful decision the declaration of the Board that the election under which its employee representatives were chosen was illegal and that the rules and working conditions agreed upon by such employee representatives and the management were void and of no effect. This position was taken and is sustained by the carrier because it was and is of the opinion that the Board had no jurisdiction over the matter which was the subject of the decision.

The Board has said that "the question involved is merely one of procedure," and the carrier is advised that questions of procedure and the method and manner of selecting employee representatives are matters within the control of its management and its employees and wholly without the jurisdiction of the Board.

2. Disputes which are cognizable by the Board are, in the opinion of the carrier, those which threaten "an interruption to the operation of any carrier" and which involves or grow out of real grievances in connection with wages or working rules and conditions.

Working rules and conditions have been made the subject of agreements by and between the carrier and its shop craft employees, and those rules and conditions are subject to the jurisdiction of the Board and its decision thereon under the provisions and in accordance with the procedure of the Transportation Act.

3. The carrier states that it has not "violated" any decision of the Labor Board in the sense that it has set at naught and refused to comply with a lawful pronouncement of the Board; neither has it violated any provision of the Transportation Act, nor "defied" the Labor Board or the Congress which created it. To the contrary, the carrier has conceded the jurisdiction of the Labor Board to hear and decide such disputes as fall within the purview of the Transportation Act, and it is a willing party to several submissions now pending before the Board in the matter of wages and working rules and conditions.

4. The carrier further states that it is its opinion the Board, in

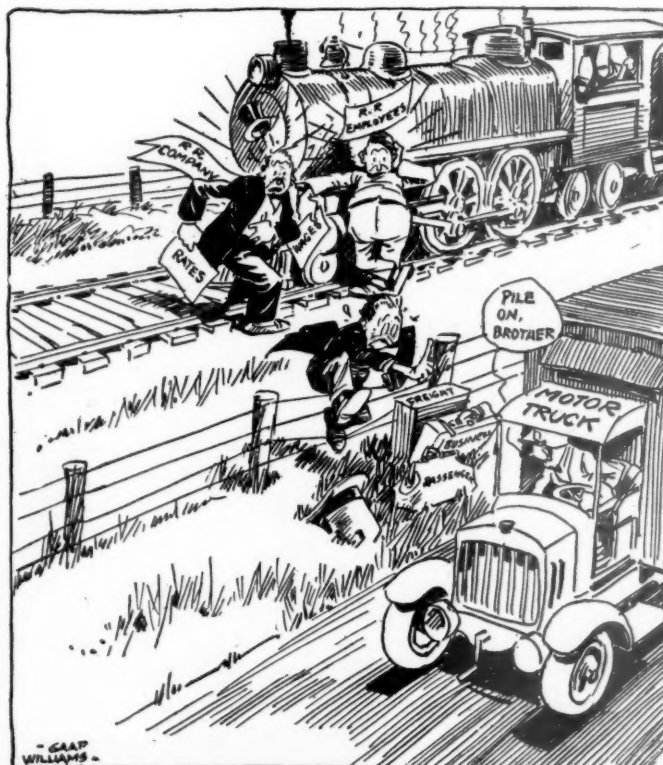
its said Decision No. 218, has without warrant of law exercised the functions of an administrative or regulatory body, and as such has assumed to invade the domain of management and to assert jurisdiction over matters solely referable to the functions of railway management.

5. The carrier represents to the Board that in denying its jurisdiction over the subject matter of Decision No. 218 it does so with all due courtesy and with no lack of respect for the Board's decisions on matters within its mediatory jurisdiction of real disputes affecting the wages and the working conditions of its employees.

6. The carrier is convinced that the power sought to be exercised by the Board in this proceeding has not been conferred upon it by Congress, and consequently the order or decision which it has made is entirely beyond the scope and authority of the Board.

The carrier strongly deprecates any controversy with the Board with respect to the extent of the powers or jurisdiction conferred upon it by the Transportation Act, and, if compliance with the decision had involved no serious consequences, the carrier in order to avoid any controversy on the subject would have submitted to the decision notwithstanding its belief that the Board had assumed a jurisdiction not conferred upon it by Congress. But the carrier, in the consideration of the question as to whether the directions of the decision should be observed, was obliged to determine whether the system of employee representation which it had inaugurated was to be impaired and its usefulness and value largely destroyed, or whether in order to avoid non-compliance with the decision it should, in considering and determining what rules governing working conditions should be established, consult with an organization which, the carrier believes, advocates (a) the closed shop, (b) the sympathetic strike and (c) limitation of output, and which had been largely instrumental in framing rules governing the operation of the shops during the period of Federal control. The carrier asserts that these rules had reduced the efficiency of shop labor on its lines to the extent of at least 35 per cent.

Following the presentation of this statement B. W. Hooper, public member of the Board, started the cross examination of the legal representatives of the Pennsylvania who were present. However, the latter rested their replies largely upon the statement which they had just presented and the cross examination did not bring out any points in this controversy other than those which have been apparent for some time.



From the Indianapolis News

Somebody Will Give Us a Lift

Railroads Prepare Against Strike Possibility

Loyalty Poll, Volunteers and Schools, Features; Loss of Seniority, Pensions, etc., Threatened

ALTHOUGH the general impression seemed to prevail that the general conference called by the Railroad Labor Board on Thursday as well as other factors in the situation would be likely to result in the withdrawal of the strike order of the train service brotherhoods, the railroads in all parts of the country have spent the last two weeks in bending every effort towards meeting the strike if it should occur.

The railroads around New York have co-ordinated their work through the general managers' committee, of which E. M. Rine, vice-president and general manager of the Delaware, Lackawanna & Western is chairman. Each of these roads has asked its employees to consider carefully any decision to leave the service. The employees have been warned that if they leave the service, they will lose not only their jobs but their seniority rights and pension privileges. Ralph Peters, president of the Long Island, in his letter to employees of that road, further asks the question, "Can you

schools have been established at various points by the different roads.

Appeal to Employees' Loyalty

A letter typical of those which have been addressed to the train service employees is that signed by William H. Truesdale, president of the Delaware, Lackawanna & Western. Mr. Truesdale's letter was dated October 20 and read as follows:

To all employees in engine, train and yard service:

Although the Delaware, Lackawanna & Western has not received notice from its employees in engine, train and yard service of such intention, the newspapers contain apparently authentic information to the effect that a strike of such employees has been ordered to take place on November 1, 1921.

It is stated the strike has been ordered as a protest against a reduction in wages authorized by the United States Railroad Labor Board in Decision No. 147, effective July 1, 1921.

Therefore, the proposed strike is directed, not against this company, but against the United States Railroad Labor Board, created by an Act of the Congress of the United States of America, and is in defiance of an overwhelming public sentiment.

Misleading information is being disseminated as to the intention of the railroads to arbitrarily further reduce wages. Under the law this can only be accomplished through agreement with employees or by order of the United States Railroad Labor Board.

Facing, as you do, at this time a very important crisis in your lives, and one that will in its outcome cause you and your families serious and permanent loss, the management of the company feels that it is justified, for many reasons, in making this personal appeal to you to give careful thought and consideration to the question of obeying the order you have received to leave the service of the company on November 1.

Many of you have been in the company's employ for years, during which you have worked your way up to the positions of priority you now hold and which are of much value to you. You should not, in justice to yourselves, voluntarily sacrifice such rights without being sure of getting full value in return.

You, each and all, we are sure, are fair enough to recognize that this company, since the United States Railroad Labor Board was established, has complied fully with every order issued by that Board governing wages and working conditions of railroad employees.

We earnestly urge each one of you, before taking a step which you cannot retrace and one which may involve you and your families in loss and possible suffering for many years to come, most carefully to weigh and consider the wisdom and justification of obeying the order for cessation of work on the date above mentioned.

Company Will Take Over Insurance

Will you not answer to your own satisfaction the following questions:

Am I justified in giving up my position and seniority rights for which I have worked all the years I have been connected with the company?

Will I obtain anything that will compensate me for the pension benefits which I will lose by giving up my position?

Am I sure of getting, in return for the sacrifice of lifelong friends, associates and surroundings for myself and family, anything that will justify the risks I am taking by now giving up my position?

The company realizes that in remaining loyal to it at this critical time many of you may sacrifice certain insurance protection you now have for your families through the organizations with which you are connected. It is not desired that you shall suffer loss in this way, and in event, therefore, of your being forced to give up these insurance benefits as result of your loyalty continuing at work, or if, for any reason, you should desire to withdraw from the organizations which now provide this insurance for you, the company will take over same and guarantee, on equal terms as to premiums, etc., with those you now pay, to carry it for you. In doing this it will arrange with one or more actuaries of leading life insurance companies to work out in de-

The New York, New Haven & Hartford Railroad Company Central New England Railway Company

BALLOT

VOTE YES OR NO

REMAINING AT WORK IF STRIKE NOW ORDERED IS ACTUALLY CALLED.

MARK WITH (X)

YES

☐

NO

☐

SIGNED _____

OCCUPATION _____

Loyalty Poll Ballot

secure another position where your experience will count and where steady work can be secured at equally remunerative wages?"

A feature of the steps taken by the roads represented in the general managers' committee has been the taking of a so-called loyalty poll, in which each employee has been asked pointedly whether he will stay on the job or walk out. Announcement was made after a meeting of the committee on Tuesday that a majority of the men questioned by supervisory officers had signified their intention of remaining loyal in case of a strike.

The roads have announced their intention of taking care of the employees who stay with them during the emergency. Various of them, including the Delaware, Lackawanna & Western, the New Haven, the Long Island, etc., have advised their intention of taking care of the insurance of any employees who may lose their insurance in the brotherhood organizations by remaining loyal to the road.

When the strike call was first announced, several of the roads inserted advertisements in the daily papers asking for men to take the place of those who may walk out in response to the strike order. The response to such advertisements was in a number of cases so great that the advertising was discontinued within a few days. Volunteers have also come forward. The colleges in particular have taken the lead in this respect. To train the new employees and volunteers,

tial a plan of insurance that will fully and fairly protect you and your families.

We earnestly hope you may decide upon your course cautiously and wisely.

The New Haven, which addressed a similar letter to its employees, enclosed a reprint of editorials, from a number of leading newspapers, intended to show how public opinion was expressing itself in connection with the strike call.

Training Schools Established

Among the roads that have announced the establishment of training schools for volunteers is the Long Island. "The Long Island Railroad has no quarrel with its men," says a circular addressed by that road "To the people of Long Island and the patrons of the Long Island." The circular says in part:

The management and the men have complied with all the orders and regulations of the Labor Board, a body duly authorized to handle all such matters under the Transportation Act of 1920. If the threatened strike takes place and a majority of the men on the Long Island Railroad obey the order of their leaders it will seriously affect train service and cause great inconvenience to the public. To prepare against this eventuality the management asks the co-operation of its patrons, and calls for volunteers who, with such men as remain in the service, may operate the trains necessary to meet the daily requirements.

We will need men who can be trained to perform duty as engineers, firemen, motormen, conductors, trainmen, yardmen, switchmen, etc.

Schools of instruction will be opened at once at Jamaica and Morris Park Shops, where an organization for training men for this service has been provided. All volunteers and applicants for employment to fill the places of such men who may leave the service are requested to present themselves to the assistant general superintendent at his office at Jamaica, room 210, where they will be classified and instructed between the hours of 8.00 a. m. and 10.00 p. m. daily until their services are required.

The intention is not to employ professional strikebreakers, and the railroad company guarantees that those who enter its employ will not be discriminated against as to the permanence of their employment.

Volunteers

Volunteers to man trains are presenting themselves in many quarters. In the suburban zone around New York, many communities have formulated plans for manning the suburban trains. Mayor Charles H. Martens of East Orange, N. J., who played an important part in the outlaw strike of April, 1920, is perfecting an organization to assist the Lackawanna and Erie. Among other things, he has sent out a questionnaire to the persons who have volunteered asking each whether he can qualify as a locomotive engineer, fireman, trainman, clerk or motor truck driver.

Dean George E. Hodges of Williams College, Williamstown, Mass., has announced that his institution has decided to place the student body at the service of the Boston & Maine. Some 700 students have volunteered at Harvard and a school has been established near the college grounds to instruct men. The work is in the hands of an undergraduate committee, the college not having taken any official action. News concerning the volunteering of college men is also received in connection with Stevens Institute, Hoboken, N. J.; Lehigh University, South Bethlehem, Pa.; Trinity College, etc.

State Officials Take Action

Several of the states have taken official action relative to the calling of the strike. Each of the governors of the New England States has established a general emergency committee to provide food and fuel for the people. These committees are co-operating with each other and each has made or is making a survey of the food and fuel situation throughout its state. In so far as possible, they are arranging for transportation by motor truck, water and air in case of a railroad tie-up.

Probably the most decisive step, however, has been made

in Kansas. Governor Henry J. Allen has advised the New York Times in response to a telegram that Kansas will act in the situation as follows:

The Industrial Court act of Kansas prohibits any men engaged in transportation from conspiring to deprive the public of this essential utility. It prohibits the railroad managers from closing down their transportation lines or from entering into any conspiracy to deprive the public of this utility. It prohibits the employees from entering into a conspiracy to deprive the public of transportation. The Kansas law provides that all controversies between the railroads and their employees relating to wages or working conditions shall be adjudicated in the Court of Industrial Relations. In the meantime the lines shall continue to function.

This law will be enforced in Kansas, just as it was during the outlaw switchmen's strike, when the few who violated it were arrested and prosecuted for the violation. The executive office is now receiving and listing the names of volunteers who are capable of working in railroad industries. The law gives the state the power to take over the railroads and to operate them in behalf of the public. In case of the failure of the railroads to operate their lines, the state will take over those which are necessary to the public welfare. It is possible that the strike will not be made applicable to Kansas. When the general strike was ordered something over a year ago by the International Brotherhood of Stationary Firemen and Oilers, the executive committee specifically exempted Kansas from the provisions of the strike on the ground that a railway strike in Kansas is a strike against the law of the state.

Lee Endeavors to Explain Strike Cause

CAUSES for the strike of the train service men were explained by W. G. Lee, president of the Brotherhood of Railroad Trainmen, in a statement given to the Associated Press October 22. The statement was issued, Mr. Lee explained, because "the public is rather confused" as to its causes.

Three causes were ascribed by Mr. Lee:

- (1) The wage reduction of July 1.
- (2) Proposed further reductions.
- (3) Proposed elimination of rules, which would mean still further reductions.

Mr. Lee's statement as to the causes of the strike said in part:

The public is rather confused as to the causes for the railway strike. There is a belief on the part of some that the strike is for higher wages, and is not understood to be a demonstration against a wage reduction, to which have been added propositions further to reduce wages and eliminate rules which would mean still further reductions.

Railroad transportation employees, even when peak wages were paid, did not receive advanced wages in keeping with the increased living costs. The daily rate paid transportation men was fixed for all classes in the United States in 1913 and, regardless of the increased costs of living, there were no increased wages for these employees until January 1, 1918, and only then after a most searching investigation had been made by the Lane Commission to determine what should be the reasonableness of wages paid transportation employees. This commission reported that wages were inadequate and, contrary to public opinion, did not measure up with wages paid in other classes of service.

The rate of a freight brakeman between Chicago and New York was \$2.67 a day, which was referred to by the railways in their publicity campaigns as a princely wage, and the public naturally supposing that a business representing so much as the railway business would tell the truth, accepted the railway statement without question. It does not take long to determine how much could be earned in a month of thirty days at a rate of \$2.67 per day. Until January 1, 1918, \$80.10 was the princely wage some fifty-odd thousand railroad men received in what is known as the Eastern territory. Other wages were in proportion to the wages of the freight brakemen.

With the reduction in wages of July 1, 1921, the present wage of this employee is \$134.40 for thirty days in the month, and he is fortunate indeed if he is able to make every day in the month. The hazards of the service, exposure to the weather and very many other reasons all contribute their share towards making him an intermittent, as well as a piece worker. Transportation employees are not paid by the month, but by the day, or trip.

Administration Strike Policy More Conciliatory

President Leaves Labor Situation in Hands of the Labor Board and Departs on Four-Day Trip

By Harold F. Lane

WASHINGTON, D. C.

THE suggestion of the Railroad Labor Board that proposed requests for further reductions in wages be deferred for several months came as somewhat of a surprise in view of the uncompromising attitude heretofore displayed by the administration and in view of the well-known desire of the President to meet the public demand for rate reductions.

The President and his advisers had failed to display any fear of a strike and had let it appear that they were relying mainly on the manifest fact that public opinion would not lend any support for a strike against the orders of the Labor Board, while proceeding rather calmly and deliberately to prepare for an emergency if it came. It had been assumed since the statement issued by the public group of the Labor Board in Washington on October 16, that the actual presentation to the board of the new requests for wage reductions might be temporarily delayed until after the Interstate Commerce Commission should have rendered its decision reducing grain rates and possibly in other cases, in order that an opportunity might be afforded to demonstrate that the proposed wage reductions are intended not for the benefit of the railroads but to make rate reductions possible and in order to allow a "cooling-off" period. It was also understood that in the ordinary course of procedure the Labor Board would hardly be able to reach a decision in a new wage reduction case without allowing some time to elapse, but it was not expected that the wage case would be postponed indefinitely or be expected to wait until next July for a decision, particularly as the Interstate Commerce Commission has discounted further reductions in expenses in order to find a ground for reducing the grain rates. It can hardly be doubted that the action of the Labor Board was taken with the knowledge of the President, since he has so plainly been trying to co-ordinate both the Labor Board and the commission with an administrative policy, but it has been suggested that the Labor Board may have stretched to unexpected lengths the period of time implied in the suggestion that the wage requests be deferred temporarily.

Possibility of Postponing Issue

The idea of postponing the issue until next July seems to suggest that the opposition of the government to a compromise applied particularly to a compromise of the wage reduction already made which is the technical basis for the strike threat, but if the new wage case is to be long postponed the brotherhoods would have attained what is understood to have been all along their real purpose, that is, to head off further encroachments upon the advantages they had gained during the war period. A settlement upon that basis also would apparently limit for some time the fulfilment of the general desire for rate reductions to those which may still be made out of the 12 per cent wage reduction, although the decision in the grain rate case has apparently been a signal to many other shippers to demand rate reductions. The American Wholesale Coal Association has already got its complaint in and others are to follow.

The administration continues to act as if it were not in the least afraid of a railroad strike. The policy of President Harding was revealed to some extent in Chicago on October 21 when the Railroad Labor Board, following an informal conference with the labor leaders the day before, issued its formal order calling upon both the labor organi-

zations and the railroads to maintain the status quo pending an appearance before the board on Wednesday of this week. Another phase of the policy was manifested in the report of the Interstate Commerce Commission reducing Western grain rates. The order issued by the board on Friday indicated that the meeting was in line with the purpose as announced at the White House last week of "definitely ascertaining whether we have created a futile agency" in the Labor Board and of using the board as the legally constituted authority to inform the organizations that have threatened a strike in protest against its former wage reduction order that such a strike would place them squarely in violation of an order of the board, if not of the "toothless" law, and that under such circumstances those responsible for such a step could only be regarded as enemies of the society that has set up the board as an impartial tribunal to decide just such controversies. The suggestion that a new wage issue now be postponed appeared a plan to make it easy for the brotherhoods to acquiesce.

President Directs Policy

The President's determination to deal with the situation, through the properly constituted authorities of the government instead of handling it directly himself is in accordance with the policy he has previously announced on several occasions not to "go over any one's heads." After he had declared in his message to Congress last April that rates and the cost of transportation must come down, an impression was created in many quarters that he was about to order the Interstate Commerce Commission and the Labor Board to take the necessary steps. It was stated at the White House, however, that the President clearly recognized that rate-making and wage-fixing were the functions of the two bodies and that he had neither the authority nor the intention to assume either of those functions. That did not mean, however, that he should not confer with members of the commission and of the board and let his desires be known, while receiving from them information and advice as to the practical and technical questions involved.

The President conferred shortly after his message to Congress with the chairmen of the Interstate Commerce Commission and of the Labor Board and later with railway executives and representatives of labor, the shippers, the security owners and other interests involved. He called on the Interstate Commerce commissioners personally and recently he has had several conferences with the chairman of the Interstate Commerce Commission as well as his recent meeting with the public group of the Labor Board and the commission. Undoubtedly some of the ideas the President started with have been modified to some extent by these conferences and possibly he was able to stiffen the attitude of both organizations by letting them know that action of a certain kind would be regarded as fulfilling policies of the administration and would, therefore, have its support.

At any rate, after the President had made it clear that the handling of the strike threat situation was the job of the Labor Board, which has heretofore had some doubt as to whether it had any powers except those represented by its influence on public opinion, it issued an order which indicated all the confidence of any public authority which states the mandate of Uncle Sam, and on the following day

the Interstate Commerce Commission, which was recently so doubtful of its authority to reduce rates under present conditions that it recommended instead of ordered a reduction in live stock rates, came out with a decision reducing western grain rates and also indicating its view of the necessity of effecting further reductions in railroad operating costs. Both actions were those of the respective bodies themselves and within the province of each, yet they had been made a part of a specific policy of the Executive after consultation with him.

Grain Decision Expedited

The commission's rate decision, although it had been made in a formal proceeding entirely independent of the recent developments in the labor situation, was undoubtedly expedited and made public at the time it was for the purpose of fitting in with the policy formulated for dealing with the present situation. It serves to call the attention of the public and of the railroad employees themselves to the fact that wage reductions have been made and are proposed not merely for the benefit of the railroad companies but for the purpose of making rate reductions possible. When the grain rate decision is considered in connection with the reductions that have already been made by the railroads voluntarily in recent months and the reduction in live stock rates they made on the recommendation of the commission, it will be seen that a very large proportion of the wage reduction ordered by the Board effective July 1 has already been passed on to the public and other decisions of the commission in formal cases are in prospect.

An explanatory statement from either the White House or the Interstate Commerce Commission to the public to this effect would easily demonstrate, if Commissioner Potter's opinion in the grain rate decision has not already done so, that any extensive further reductions in rates can hardly be expected without a further reduction in wages.

The President has thus far shown no indication of following the suggestion that he summon the brotherhood chiefs or the railroad executives to Washington for the purpose of mediation. He is leaving the strike matter in the hands of the Labor Board until it is clearly demonstrated that the law which governs its actions is not strong enough to accomplish the purpose. If that should turn out to be the case it would be incumbent upon him to act, by calling upon Congress for more drastic legislation or in other ways.

The fact that the date set for the appearance of the brotherhood leaders and the railroad representatives before the Labor Board is so close to that set for the strike gave an impression of confidence on the part of the administration that a plain statement of its position through the medium of the board would be sufficient to persuade the brotherhood leaders, as the leaders of most of the other railroad unions have already been persuaded, that the times are not propitious for a strike in defiance of the government.

War-Time Power to Take Over

Roads Not Relied Upon

Meanwhile the President has made another move in letting it be known authoritatively that no consideration is being given to the various proposals, most frequently suggested from the side of the union leaders, that the war time powers of the federal government be invoked to handle the situation. The fact that the United States is still technically at war and will retain that status legally until formal exchange of the ratifications of the peace treaties is not to be relied upon and the announcement of this fact is likely to have considerable weight in the councils of the labor leaders if the theory is correct, as there are many grounds for believing that one of their chief motives was to induce the government to take over the railroads.

Under the law the President is authorized in time of war

to take over the railroads, as President Wilson did in 1917. As soon as the peace treaties are ratified he would not have such power and there are other powers in the national defense act that would likewise expire. The announcement that he is not considering taking advantage of a technical possibility, therefore, means that he sees no necessity for and has no intention of trying to avert the threatened strike by taking over the roads. He has plenty of authority for the use of troops to protect the mails and can declare martial law if necessary to deal with violence.

If one of the purposes of organized labor was to try to throw the railroad payroll again onto the backs of the taxpayers rather than the rate-payers in the hope of repeating the era of frenzied wage increasing that marked the McAdoo-Hines administration of the roads, they have now been given ample warning that there is "nothing doing" in that direction. It is somewhat difficult to imagine why they should desire a repetition of that performance, for which the present administration is still struggling to pay the bills, in view of the fact that railroad wages are now higher than they were when the government relinquished the roads.

President Wilson in 1917 commandeered the roads on the theory that it was necessary to the prosecution of the war, although it was generally recognized that one of the reasons was the fear of the consequences of a labor controversy then developing. He also not only retained the war time control of the roads for nearly a year and four months after the armistice but the technical state of war was taken advantage of after that date to commandeer rails and coal for which the owners asked higher prices than the government desired to pay.

President Harding, however, has gone so far as to indicate that as soon as the treaty ratifications have been made he will issue a formal proclamation of peace, in order to make it certain that war time laws are not to be used three years after the war was ended.

Preparations for Emergency

Among the preparations being made are those of the post office department for handling the mails, and those of the war department for preserving peace if necessary and also for manning trains with such of the men in service as have had railroad training. Secretary Hoover has also announced that the plans of his department for the mobilization of food supplies, coal and other necessities in case of a walk-out on the railroads had been completed.

The governors of all states have been communicated with by the department, which will act as a clearing house of information and advice. Food and fuel are being concentrated at strategic points to make possible quick distribution. Preparations have been made for the massing, if necessary, of fleets of motor trucks and automobiles to move commodities. One estimate puts the number of machines quickly available at 1,000,000. Transportation service by water carriers and airplanes also will be expanded to supplement the motor vehicles and such trains as can be operated.

Some industries, it is said, have been preparing for weeks to face a strike emergency. Under the plans devised the governors would direct the emergency work, with the Department of Commerce helping to co-ordinate effort. In disputes concerning the distribution of foodstuffs or fuel the department would be prepared to act as arbiter. The department is well equipped to direct and co-ordinate such work because of the conferences with representatives of various industries which Secretary Hoover has held since taking office. Plans have included a survey of motor transportation facilities to make possible the rapid requisition of motor trucks and automobiles.

The Department of Justice is also making preparations for any activities that may fall to its share if the brotherhoods do actually go so far as to make it necessary. Attorney

General Daugherty, after conference with the President, summoned to Washington for a conference on Monday the United States district attorneys from five cities, New York, Chicago, Cleveland, Buffalo and Indianapolis, to arrange for "concerted action and harmony of effort." Following their conference instructions were also sent to other district attorneys. Mr. Daugherty gave a statement to the press indicating that if necessary the department is prepared to act with vigor. He said:

District Attorneys Confer

I asked the district attorneys to come here in order to have a conference and understanding in any event and any emergency.

I still doubt that there will be any strike, but it is the duty of the Department of Justice to be prepared for any emergency, and it is necessary that there be uniformity of proceedings and policy determined in any event. So I called these gentlemen here, and have discussed with them fully the various plans of the department, if there should be a strike. They will be here tomorrow and we will have another conference.

We did not discuss the merits or the matters in dispute between the railroads and the employees who have threatened to strike. With the merits of that controversy the Department of Justice takes the position that it has nothing to do, and the merits probably will not be entered into at any time.

We probably would concede that the men have the right to strike—that means quitting their employment. They may strike in groups. I don't say they can strike in groups scattered broadcast over the country without violating a conspiracy law when it comes to antagonizing the government of the United States.

I would say that, peacefully doing so in a lawful manner men may quit their employment and stop. But I do say that when it comes to the government's interest, they cannot strike at that.

When it comes to these facilities the government has the power, right and duty to see that the owners of the railroads give the American people the service they are entitled to. Many, many more American people are interested in these facilities, in seeing that they serve the public, than in the controversy between the railroad operators and employees, regardless of who is right or who is wrong.

The conference has been held for the purpose of bringing concerted action and harmony of effort, to the end that the railroads may continue to give this service with the least interruption possible, and as soon as possible without interruption, so that the public may be served. There is involved the accommodation of people who travel, and the providing of the people with coal as winter approaches, and food, which cannot be distributed without these facilities.

The government has the power and ample authority, and it will be as just and reasonable as it can be, but these arteries of commerce must continue to serve the people, property must be preserved, life protected, law enforced and order maintained. The government is big enough and strong enough to see that this is accomplished.

The district attorneys at the conference were selected from railroad centres, Mr. Daugherty said, and because the headquarters of many of the railroad labor unions were located in their districts. It was inferred that if legal action were taken it would probably be started in one or all of these districts.

President Harding himself apparently feels so little apprehension or at least has his plans so well in hand that he absented himself from Washington for nearly four days this week, from Tuesday to Friday, on a trip to the South, and there was no cabinet meeting on Tuesday.

Department of Justice Busy

The Department of Justice, through its representatives located throughout the United States, has been gathering from the most authoritative sources information as to the probable effect upon the various sections of the country of the threatened railroad strike.

"This information is being gathered primarily to enable the public agencies which will be called upon to co-ordinate and govern the transportation and distribution of necessities in the event of a strike to function in the light of accurate knowledge of conditions. Copies of all reports are now being furnished to Secretary Hoover, who has undertaken work of this character. Enough information has already been obtained

to make it clear that even if the strike should take place as threatened, there is no danger that any part of the country will suffer any serious hardship from lack of food or fuel for a period of at least two weeks after a general tie-up.

"All parts of the country report an abundance of food supplies with the exception of fresh meats, for which most of the large communities depend upon frequent shipments from the packers in the Middle West. Grain supplies, canned goods and other provisions are plentiful, and there appears to be no danger that any one will starve.

"However, a note of warning is sounded by many public officials and others interviewed by department operatives against the hoarding of foodstuffs and fuel. Their optimistic statements are based upon the assumption that the American people will be judicious in their purchases and will not buy in excess of their daily needs. A sure way to cause a shortage, with its attendant ills, would be for the American housewives to begin an orgy of buying and hoarding.

Public Organized

"One item to which the department is giving special attention is the milk supply. Small communities and the large cities of the West expect but little inconvenience in this regard, since their milk supplies are largely brought in by wagon or motor truck. In the large Eastern cities, however, this presents a serious problem, but active steps are being taken by municipal and civic organizations to meet it.

"The fuel supply appears to be normal for this time of year except to the Northwest. There the scarcity appears to be due mainly to faulty distribution, since ample supplies are reported to be in storage at lake ports. Lighting plants and other public utilities generally report that their fuel supplies will last from two to six weeks without replenishing.

"An especially reassuring feature disclosed by the investigation is the extent to which the public is organized for its protection. Under the leadership of the Mayor or other public official, practically every city has formed an organization to cope with the situation which would result from a general railroad strike. Inventories are being made of the available supplies of necessities, and steps are being taken to insure an efficient distribution. Also a count is being made of all available wagons, motor trucks and other transportation facilities, and plans are being made to use them to the best advantage.

"In the course of its investigation the department has sought to obtain from railroad officials in various parts of the country expressions of opinions as to the extent to which their respective lines would be able to operate in the event that a strike is called, as now threatened. The estimates thus gathered vary widely, and, of course, cannot be given out in detail. The officials interviewed are unanimous in saying that there will be some men, particularly those having seniority and pension rights, who will remain loyal, and that they will be able to call in pensioners and others, thus forming a nucleus of trained men. With these and any experienced men who may volunteer the officials predict that they will be able to maintain at least a partial service, which will improve in efficiency and volume as the strike continues."

The President, Mr. Daugherty said, would no doubt "say what he had to say when the time came," and the people throughout the country would know what the government's policy comprised. Those responsible for the situation would have to take the consequences, the attorney general added.

While maintaining his disbelief that a general strike would materialize, Mr. Daugherty declared the Justice Department was prepared to act "judiciously within the law" to prevent a tie-up of the country's transportation facilities. He did not discuss specifically the department plans, explaining that the government might use one method in one section, adopt another course of action in another, and use all of its legal weapons in a third locality.

State Versus Interstate Rate Regulation

WASHINGTON, D. C.

WHILE THE HEARINGS before the Senate committee on interstate commerce in the general railroad inquiry have been temporarily suspended (it is said for the purpose of heading off a general debate on the strike situation), the committee on Monday, October 24, began hearings on the bill introduced by Senator Capper of Kansas and supported by the agricultural "bloc," or "block" as it is now sometimes called, to restore the power of the states to reduce railroad rates without too much regard for the effect on interstate commerce. Incidentally the bill proposes to repeal Section 15a of the act to regulate commerce as amended by the transportation act, because the fact that the unwillingness of some states to allow rates which would contribute sufficiently to the provision of a 6 per cent return for the roads was taken by the federal commission as one ground for ordering intrastate rates advanced.

The agricultural bloc also held a caucus at the Capitol last week and adopted a program on the railroad situation which calls for the repeal of Section 15a on the ground that it constitutes a guaranty to the carriers, this reasoning being based apparently on the fact that although the rates established by the commission under its authority actually produced a return of less than 3 per cent for a year, the rates which the farmers and other shippers have been paying during the year were intended to produce a 6 per cent return. They are, therefore, just as objectionable to many shippers as if they were high enough to make 6 per cent. The caucus also declared for a reduction in the rates on agricultural products. Whether the action of the commission in reducing grain rates in spite of the law will lead to any change in the program has not yet been stated. Senator Cummins is not yet recognized as a member of the agricultural bloc, but he is understood to have swung around to their way of thinking to some extent as to state rates.

Supreme Court Orders Rehearing

in Wisconsin Rate Case

The question of the constitutionality of the provisions of the transportation act relating to jurisdiction over state discriminations against interstate commerce, or the legality of the Interstate Commerce Commission's interpretation of the law in its various orders increasing state rates is destined to remain unsettled by the highest court for several months yet. Presumably because ex-President Taft has succeeded the late Chief Justice White, the court on October 24 ordered a reargument on December 5 of the Wisconsin rate case, the first of the cases growing out of the commission's orders under the new law to reach the court. Many people had looked for a decision this fall. The court also set for argument on January 3 the petition of the state of North Dakota to file an original bill attacking the commission's order advancing the state rates in that state.

Contents I. C. C. Has Misinterpreted Act

John E. Benton, solicitor of the National Association of Railway and Utilities Commissioners, was the first witness before the Senate committee on the Capper bill. He did not exactly support the provisions of that bill but presented resolutions adopted at the recent Atlanta convention of the association. Setting forth its objections to the "centralization of authority in Washington" Mr. Benton argued that the commission has misinterpreted the law and that "chaos" in regulation had resulted.

Roads Wrecked by Government Control

Solicitor General Beck, in presenting the argument in the Supreme Court in support of the Interstate Commerce Commission's order in the New York intrastate passenger rate

case, in which the state rates were ordered increased by the amount of the interstate increase, declared that the government, having "wrecked the railroads to win the war" now is attempting to rehabilitate the carriers under the provisions of the Transportation Act. He said that the wreck of the roads by government control was exceeded in its disastrous effects only by the government's merchant marine venture, where, he stated, the result has been a great deal worse. The object of the government would be destroyed, he contended, if the various states should be allowed to refuse to advance rates sufficient to allow the railroads a fair return.

Railroad Securities Bill Reported by Senate Committee

WASHINGTON, D. C.

THE SENATE COMMITTEE on Interstate Commerce at a meeting on October 22 ordered a favorable report on the bill to authorize the War Finance Corporation to purchase railroad securities from the Railroad Administration for the purpose of providing funds with which to settle the accounts of the railroads against the government. Instead of reporting the Townsend bill, which as introduced in the Senate differed somewhat from the Winslow bill as passed by the House, the committee reported the bill as passed by the House with a number of amendments, the principal of which provides that in making settlements with the carriers under the Transportation Act no payments or allowances shall be made to any carrier on account of so-called inefficiency of labor during the period of federal control and no final settlements between the United States and any carrier shall be made which does not forever bar such carrier from setting up any further claim, right or demand of any kind or character against the United States growing out of or connected with the possession, use or operation of such carrier's property by the United States during federal control, except certain claims specified.

The language of the House bill as passed has been interpreted as barring any railroad against seeking a settlement in court after failing to settle with the Railroad Administration. Another amendment authorizes the President to sell any bonds, notes or other securities acquired by him under the provisions of the transportation and federal control acts without the use of the War Finance Corporation as an agency and the proceeds shall be a fund to be used by the President in settling the accounts, any balances to be paid into the Treasury of the United States as miscellaneous receipts. Any such sales must be at a price which will save the United States from loss in the transaction. To the provision authorizing the War Finance Corporation to purchase railroad securities and to carry them pending final disposition is added a provision that no purchase shall be made by the corporation under this section which will interfere with the corporation in granting the fullest aid for financing the handling and exporting of agricultural products. It is the intention that this section shall be so construed and administered as to give the preference to such financing and exporting of agricultural products.

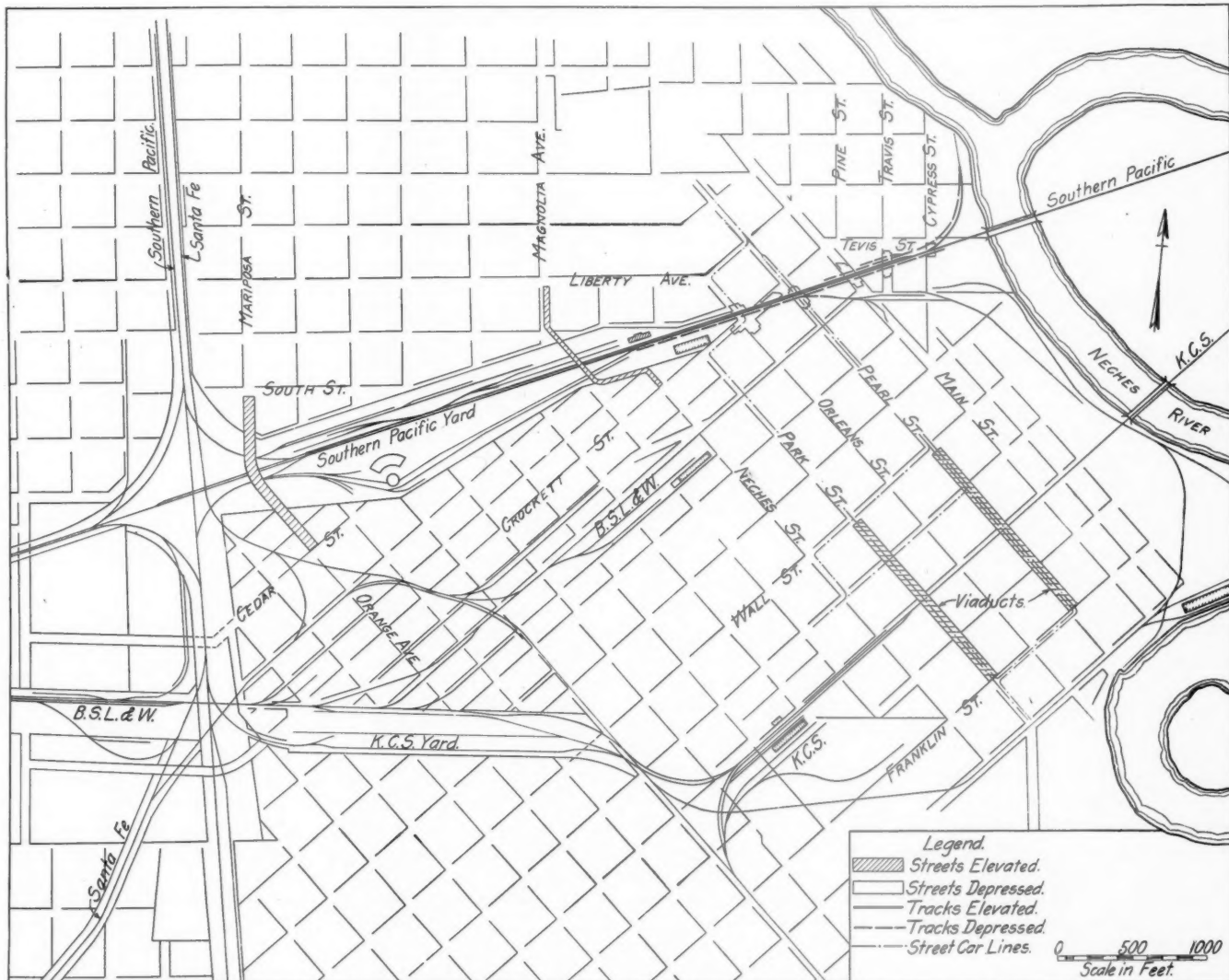
AT A TIME when every effort should be made to build up our foreign trade, the United States Senate has struck one of its hardest blows to injure it. This was done last week when, by a vote of 36 to 30, in which 11 Republicans joined 25 Democrats, the section of the tax bill defining traders and foreign trade corporations was stricken out. . . . This country's policy evidently is to tax its foreign trade out of existence. To escape the heavy taxation now facing it under the revenue bill, it will follow the line of least resistance and incorporate under foreign laws.—*N. Y. Commercial.*

Grade Separation Report Takes a Broad Stand

Plans for the Beaumont, Tex., Problem Propose Minimum Interference with the Present Layout

THERE IS A CERTAIN relation between the city and the railroads that is to the mutual advantage of both to maintain and this relation should be carefully considered before a plan is adopted that is so radical as to destroy facilities that have been established and in use for many years." The foregoing statement may be said to constitute the basic principle underlying the recommendations

Beaumont is a city of 45,000 people and as outlined in the report and shown in the map, it presents conditions not unlike those encountered in many other cities of this country. The area is relatively large for the population; the industrial territories bordering the railroads which pass through the central part of the town serve to divide the residential district into several sections. The retail district is



The Railway Occupancy in the Heart of Beaumont, Texas

made to the city of Beaumont, Tex., by Louis R. Ash of Harrington, Howard & Ash, consulting engineers of Kansas City, Mo., who were retained by the municipality to report on plans for the elimination of grade crossings of streets and railroads. On the basis of this conclusion the report of the engineers favors elevation for the tracks of the Southern Pacific in their present location, together with the construction of two overhead street viaducts crossing the tracks of the Kansas City Southern, the facilities of the railroads in each case to remain substantially in their present form. No changes are proposed for the tracks of the Santa Fe or the Gulf Coast Lines.

restricted to a few streets on which the traffic is interrupted frequently by trains on intersecting railway tracks. Commenting further on the relation of the industrial area to the welfare of the city, the report states: "This industrial area is so well established that if its present relation to the railroads were destroyed it would cause a very serious loss, not only to the industries themselves but to allied interests to say nothing of the complete demoralization of real estate values."

"Easy accessibility to freight terminals and passenger stations is a condition to be desired, and the removal of these facilities to a considerable distance from the retail and busi-

ness centers imposes a perpetual tax upon the handling of commodities which may hamper the business and industrial development of the city, and the ultimate growth and prosperity of a community is intimately associated with the development of its retail, jobbing and manufacturing industries."

On the other hand, the report points definitely to the desirability of a city plan which can be set up as a guide for future development of the city, its industries and the railroads. With the aid of such a plan, the report states that the city, "will have avoided many disturbing conditions when it shall have doubled its present population."

Tunnel and Detour Plans Impractical

Two plans are outlined in the report as alternative to the one recommended. One of these proposes a tunnel under the Neches river as a necessary feature of the depression of the tracks of the Southern Pacific below the grades of the street, but this is considered out of the question because of the prohibitive cost, \$10,000,000, and the hazards of flooding the tunnel and other obstacles. Another plan involves the detouring of the tracks of the Southern Pacific and the Kansas City Southern so as to avoid the passage of trains across the main streets in the heart of the city. This plan, however, would add five miles to the distance of trains on the Southern Pacific to enter the present passenger station and a distance of four miles for the movement of freight trains through the city. However, the plan was rejected primarily as a violation of the general principles outlined in the foregoing.

Proposed Track Elevation of the Southern Pacific

In proposing track elevation as the most feasible plan for grade separation of the Southern Pacific tracks, the report points to the difficulty arising from the grade crossings now obtaining. An abstract of the plan follows: "If neither the tunnel plan nor the detour plan is adopted there remains nothing except to separate grades at principal thoroughfares by means of either viaducts or underhead crossings. In studying this plan for the Southern Pacific one method is to secure the necessary headroom, in part by elevating the tracks and in part by depression of street grades. According to this plan, the Southern Pacific will start on an upgrade about 3,000 ft. east of the Neches river bridge, continuing to an apex at Pearl street, thence on a downgrade to a point 3,000 ft. west of Pearl street. This grade has been taken at 0.411 per cent, being the same grade now in use on the approach to the Neches river bridge. This results in raising the tracks about 7 ft. above their present elevation at the bridge and about 11 ft. above their present elevation at Pearl street. Orleans, Main, Pearl, Travis and Cypress streets will be depressed on an average of about 3 ft. below the general street level, or approximately 6 ft. below present track levels, thus providing a clear headroom of 13.5 ft. at Orleans and Pearl streets, 12 ft. at Main street, 11 ft. at Travis street and 10 ft. at Cypress street. These tracks are to be carried on a reinforced concrete viaduct from the river to a point near the Southern Pacific depot where the construction will be changed to retaining wall and fill.

Provision for Switch Tracks

"Provision is made for maintaining switch tracks at street grade reaching all the industries that are now served by the Southern Pacific. In this way an uninterrupted roadway is secured at Orleans, Pearl, Main and Travis streets except for the very infrequent switching to industries and no doubt this switching can be done at hours that will but slightly interfere with street traffic.

"In connection with this scheme, it is proposed to construct a viaduct over the Southern Pacific yards starting at Magnolia and Liberty streets and landing at Crockett and Neches streets. This viaduct probably would not be needed

at this time but it is shown as illustrating a means for taking care of future traffic requirements. The plans also include a viaduct over the tracks at Mariposa from South street to Cedar street.

"A second method of elevating the tracks is to put them high enough to obviate the necessity for depressing streets below the general level. In this plan the only interference with present street grades will be to remove the 2 ft. or 3 ft. elevation that is found at present at the railway crossings. This plan involves the extension of the raised portion of the main railway track about 800 ft. further in either direction than that mentioned in the first plan. Service tracks and other connections can be cared for with this additional elevation in practically the same manner as described above. This additional elevation will cost about \$100,000 more than where the streets are depressed to secure a part of the height. This additional cost will be reduced, however, at least in part, by the decrease of possible damages to property resulting from depressing the streets. By either plan of elevation, conditions at the passenger station remain unchanged except that the track platforms will be elevated and broad stairways or ramps will lead from the waiting rooms to the platforms. The new elevation of tracks at the passenger station above that at present will be about 7.5 ft. if the tracks are partially elevated, or about 11 ft. if they are sufficiently elevated to permit street grades to remain as they are. This plan for the Southern Pacific involves fewer changes in present conditions and, therefore, interferes less with the operations of the railway than any other plan that can be devised. It is also possible, by the construction of viaducts, further to increase traffic facilities over the Southern Pacific properties, as they may become necessary in the future. All switching service now rendered by the Southern Pacific will remain undisturbed and the use of valuable railroad properties may be continued."

Track Elevation Not Practicable for K. C. S.

In dealing with the Kansas City Southern, because of the shorter distance from the river to the passenger station and to connection with yards, it is not possible to elevate the tracks as has been suggested for the Southern Pacific and get down to ground without interfering with yard layouts. Therefore, the plan suggested for the Kansas City Southern is to build viaducts over the tracks on those streets where conditions demand an improvement in traffic facilities. The drawing shows a viaduct at Pearl street and one at Park street. These structures start at Wall street on the north and land at Franklin street on the south, and it is suggested that they be made the full width of the street so that abutting property can be developed in such way as to treat the viaduct surface the same as an ordinary street surface. This is frequently done and the result has been very satisfactory, in fact, after the viaduct reaches a certain height from the ground property abutting on either side has the advantage of two street levels.

The cost of elevating the Southern Pacific tracks without depressing the streets is estimated at \$1,360,000 while the plan involving partial depression costs about \$100,000 less. Both of these estimates assume that no new superstructure will be necessary for the Neches river bridge. The cost of two viaducts over the tracks of the Kansas City Southern, is estimated at \$700,000.

A LONE MASKED BANDIT held up the express messenger on a train of the Canadian Pacific between Swift Current, Sask., and Moose Jaw recently and robbed the safe of about \$5,000 in currency. The robber entered the car, tied and gagged the messenger, went through the open safe and then dropped off the train unobserved. The messenger was found and released when the train reached Moose Jaw.

Commission Reduces Western Grain Rates

Looks to Future as to Effect on Railroad Revenues—Present Rates
Declared Obstacle to Returning Prosperity

WASHINGTON, D. C.

REDUCTIONS in the rates on wheat and hay between points in the Western and mountain-Pacific groups of roads to the extent of one-half of the increases authorized last year in Ex Parte 74 and in the rates on coarse grains to 10 per cent less than the wheat rates, were directed by the Interstate Commerce Commission in a report made public on October 22, in the case initiated by petitions filed by the western state commissioners and various shippers' organizations. The increases last year were 35 per cent in the western group, 25 per cent in the mountain-Pacific group and 33⅓ per cent interterritorial. Rates on grain products are to be reduced to the extent that they exceed rates that would be made by continuing the relationships that now exist, except that differentials subjected to the percentage increases are to be reduced proportionately with the rates.

The commission did not issue a formal order, but it did not confine itself to recommendations as it did in the western livestock case. It declared the present rates unjust and unreasonable for the future to the extent shown and stated that an order will be entered in accordance with the findings if that becomes necessary and that it will expect the reductions to be made as soon as practicable and not later than November 20. It is also stated that the reductions required may make desirable some reductions in rates east of the western district, particularly interstate in Illinois, and it is expected that certain readjustments to equalize the through rates to competitive markets in accordance with the usual practice will be made.

The report, by Commissioner Aitchison, attempts to conform with the requirements of Section 15-a, the new rate-making rule of the Transportation Act, by stating that the commission is "not restricted by past or present statistics of operation and earnings" and that its conclusions "look to the future." While it is shown that the carriers have not yet earned the statutory rate of return under the new rates, the opinion says that neither the diminished cost of labor nor the diminished prices of materials and supplies have yet been reflected as completely in operating expenditures as must occur and that lower future costs are reasonably to be expected. Also traffic seems to be increasing. There is no specific prediction that the rate reductions will so stimulate traffic as to increase revenues but the report is based on the idea that rate reductions will help toward the return of normal traffic and that as to the commodities involved they are vitally necessary to the agricultural industry.

Western Farmers Suffering

Although the decision is based on a proceeding of investigation ordered by the commission early in the summer and submitted to the commission on hearings and arguments on September 3, it was expedited and made public at a time to make it part of the administration's policy in meeting the strike threat situation. It was discussed at the recent joint conferences of the public group of the Railroad Labor Board and the Interstate Commerce Commission, during which the public group recommended an immediate general rate reduction to the extent of the wage reductions made in July, and the fact that it was forthcoming had been intimated unofficially at the White House. It is understood also that it was discussed in conferences between Chairman McChord and the President. The printed report says it was decided October 20, and it was given out on the morning of October 22, much sooner than most commission decisions emerge from the government printing office.

In discussing the evidence presented, the commission says that the western farmers are suffering from severe readjustments and, generally speaking, are operating at a loss or without profit. Among the causes for this condition, the various elements of the post-war readjustment are referred to. It is stated there is evidence of reduction in demand for coarse grains and hay, although the wheat movement in July and August, 1921, has been almost unprecedented. Prices of some grains have fallen from war to pre-war and in some instances to lower than pre-war levels. There was testimony strongly tending to show that if present conditions are continued the less fertile farms will not be cultivated next year or the acreage of grains will be curtailed and reorganization of farming must follow along lines less favorable to society and to the railroads.

It is said that the large movement to market this year does not show that the farmer can continue to operate under present production and distribution costs, as it is the result of forced marketing regardless of prices or freight rates. The weight of the evidence, the commission says, indicates that a continuance of the existing burdens must result in diminishing production. Prices and other conditions affecting the condition of the agricultural industry are discussed at length and the report says that so far as increased loss and damage claims on account of the movement of these commodities constitute a partial basis for the increases of 1918 and 1920, that basis no longer exists to the same degree.

The report refers to the contention of petitioners that a reduction in the freight rates would give the producers an increased purchasing power which would favorably react on the railroads through increased inbound freight, although it is pointed out that the railroads denied that such a reduction would stimulate demand, on the ground that it would probably not reduce prices to the consumer.

While the railroads consistently opposed any reduction in the rates on hay and grain, they took the position that the relief sought was wholly insufficient in amount to yield any real relief to the average individual. It was calculated that the annual savings per farm resulting from a 25 per cent reduction in the rates would range in round figures from \$10 to \$50 and that such a change would be less per bushel than frequent daily fluctuations in market prices. The report says, however, that the facts disclosed make it appear that grain and grain products and hay on the whole are bearing a share of transportation charges which is disproportionate.

The financial circumstances of the carriers were also discussed and reference is made to the evidence of the railroads that equating to a full year the results for the nine months commencing September 1, 1920, the net railway operating income of the western, Class I roads yielded a return of only 2.78 per cent. It was also claimed that the actual results were even less favorable because of undermaintenance estimated at the rate of \$188,000,000 per annum.

General Conclusions

The general conclusions of the report are as follows:

Since our decision in Ex Parte No. 74 the wages and working conditions of the employees have been considered by the Railroad Labor Board, and many questions relating thereto have been determined by that body. On July 1, 1921, there became effective reductions estimated to average about 12 per cent in wages, and certain changes in labor rules and working conditions have also been accomplished which have lessened expense. For the entire country and upon the basis of a

normal number of employees it is estimated that these reductions in wages and changes in conditions now in effect will produce a saving of about \$425,000,000 per year, and that of this amount about \$160,000,000 will accrue in the western and mountain-Pacific groups.

The cost of important commodities which enter largely into the operating expense accounts of the carriers has also decreased. With some important commodities, as, for instance, coal, the change is not yet marked as to some carriers—others have for several months shown noticeably decreased fuel costs. Many other commodities have receded to price levels approaching those of pre-war times.

Neither the diminished cost of labor nor the diminished prices of materials and supplies have yet been reflected as completely in operating expenditures as must occur. Certain of the readjustments of labor rules and working conditions which have been made possible by orders of the Railroad Labor Board have not yet become fully effective. Term contracts for supplies, entered into at high price levels, still are holding the operating expenses of various carriers to levels which must be accepted as abnormal. With the expiration of these contracts, lower future costs are reasonably to be expected.

There is also every indication that the volume of traffic is on an increasing curve. This is evidenced by the steady increase in the number of carloads of revenue freight and the reduction in the number of surplus cars.

We are to administer, and, so far as possible, give force and life to all the provisions of the interstate commerce act. Section 1 requires that no more than just and reasonable rates for transportation be exacted, and in determining what is just and reasonable it has always been recognized that, among other factors, not only the cost of the service, but its value to the user, must be considered. In the exercise of our power to prescribe such rates, however, we are now required by section 15a to initiate, modify, establish, or adjust rates (as that term is defined in the section) so that carriers as a whole or in designated rate groups will, under proper standards of operation, earn an aggregate annual net railway operating income equal, as nearly as may be, to a fair return upon the aggregate value of the railway property of such carriers held for and used in the service of transportation.

Summarizing the situation before us, petitioners speak for a basic industry which the evidence shows is in a state of financial prostration, receiving for its products prices which approach and in some cases have fallen below pre-war levels, but paying transportation costs many of which are still at the war-time peak. On the other hand, the evidence shows with equal clarity that respondents are likewise suffering from financial depression and that their net earnings have been far below the standard which has been fixed by the law, although the tendency is now upward. It becomes necessary to consider whether rate reductions may be made on grain, grain products, and hay in western and mountain-Pacific territory which will be fair and lawful so far as the carriers are concerned.

The purpose of section 15a was undoubtedly to better stabilize the credit of railroads, reassure investors, and attract capital to the railroad industry. It is plainly our duty to do everything in our power to carry out this purpose. The experience of the past 12 months, however, has shown the limitations which surround in actual practice the operation of this provision of the law. The increases of 1920 were intended to give the carriers the specified return, and no doubt they would have done so if the volume of traffic had remained normal. Instead, it fell off sharply, and net earnings failed by a considerable margin to reach the desired mark. Nevertheless, when it became apparent that this would be the case, carriers and shippers alike agreed that it was not our duty, under section 15a, to raise rates to still higher

levels. To have done this would clearly have been a vain thing, harmful alike to the country and to the carriers. The rate adjustment cannot with advantage be made dependent upon fluctuations in traffic.

It is also to be noted that the duty cast upon us by section 15a is a continuing duty and looks to the future. It does not constitute a guaranty to the carriers, nor is the obligation cumulative. We are not restricted by past or present statistics of operation and earnings. These are serviceable only as they illuminate the future. What is contemplated by the law is that in this exercise of our rate-making power the result shall reflect our best judgment as to the basis which may reasonably be expected for the future to yield the prescribed return.

The conditions with which we are called upon to deal are extraordinary and unique, since they are the aftermath of a world catastrophe. The sufferings of the western farmers may be ascribed to that fact. The prostration of agriculture in this country is the product of world-wide forces. The high level of freight rates has been an obvious and tangible circumstance which has quite naturally been a target of dissatisfaction, but we are not persuaded that it has been more than a minor factor in bringing about distress.

The important thing at present, however, is not the source of the disease but the means of recovery. Whatever part freight rates may have played at the outset, many qualified to form an opinion entertain the view that the present level of these rates is one of the obstacles in the way of returning prosperity and likewise one of the obstacles to substantial reduction in the cost of living. The facts that many railroad charges are still levied at the war-time peak and the cost of living in some respects has not fallen far below it are alike the cause of discouragement to the producer who has been unable to maintain his own prices and to the employee who has experienced a reduction of wages.

The really vital concern of the carriers, in this situation, is to promote the return of what may be deemed normal traffic, and anything which will help toward this end is greatly to their benefit. So far as a tendency downward in their rates can be induced, and so far as the reductions in wages and prices which have already been made effective can be converted into rate reductions, we are assured that the full return of prosperity will be hastened for both industry and labor. The carriers have, we feel, themselves manifested a realization of this fact in the substantial reductions in rates which, from time to time in recent months, they have voluntarily made.

The case before us relates only to certain basic commodities. Necessarily our findings and orders will be so confined. In reaching our conclusions we have taken into consideration, among other things, the facts of record in regard to the present status of these commodities and of their production and marketing, the vital importance of the industry which they represent to the country as a whole, the reductions in operating expense which respondents have experienced since our decision in Ex Parte No. 74, and the present trend of traffic. They are, in brief, conclusions which look to the future, in accordance with the intent of section 15a, and which are based upon our best judgment as to what will produce the best results for all concerned, including the carriers.

Commissioner Potter's Opinion

Commissioner Potter, in a concurring opinion, strongly emphasized the necessity for further wage reductions. He said in part:

I concur in the majority report although in my opinion there is uncertainty as to whether we are doing the right thing. The report does not recite all of the considerations which influence my vote. This fact, coupled with the fact that we are dealing with fundamentals which go far beyond

this particular case, prompts me to file a separate expression of my views.

At a time when our railways are charging lower rates and paying higher wages than carriers of other countries, it takes a lot to explain an order requiring a rate reduction when the earnings of the carriers are much less than the minimum fair return which the law prescribes.

I have the keenest appreciation that we must be watchful and alert to see whether our action is beneficial or harmful. Our action will be wrong and will need prompt correction, if the results of recent and further needed readjustments respecting operating costs do not strengthen the carriers. So far for the current year net earnings have been insufficient to compensate the carriers for their services, in the amount which the law has fixed as a fair return upon the value of their properties used in the public service of transportation. If future operating results are no better than those of the past nine months, the carriers will be unable to maintain their efficiency and render the service which is vital to the public welfare—ignoring entirely the element of common justice to the owners in the way of a fair return upon their investments. In the public interest, as well as in fairness to the carriers, there must be done without delay whatever is necessary to so improve their operating showing as to protect their credit, restore confidence, and attract new money to make betterments for which there is urgent need. To require a rate reduction under such circumstances is for us to assume a grave responsibility. Notwithstanding the risk involved, we must be guided by our best judgment, and I am convinced that a reduction should be made.

It is not clear to me that the savings made in the matter of wages and other costs since we decided *Ex Parte 74* have been sufficient to justify the present reduction in its entirety, but those savings, with further prospective savings do, in my opinion, justify our findings. The prospective future reduction of wages and other operating costs are, perhaps, more essential to justify the rate decreases than the reductions that already have been realized. I am led to concur in the report by a firm conviction that the transportation burden on the industry and commerce of the country is too heavy and must be reduced, and that, as a part of a needed general readjustment, it can be reduced with increase of net earnings. I believe increase in traffic and a reduction of operating costs may be expected, and that increased net earnings to the carriers may be looked for.

Practically everyone admits that rates are too high. Rates too high are unjust and unreasonable and under the law must be reduced. Those who justify present rates regard them as a necessary evil—something that must be tolerated because high costs of operation prevent their reduction. That is no justification. If operating costs are holding rates at a level too high, the thing to do is to reduce the costs.

Reduction of Production Costs Necessary

Almost everything has been too high. The fundamental trouble with the industrial and commercial affairs of the country is that there is insufficient production and costs are too high. The latter is the cause of the former. Production in this country at the present time is far below normal needs. If normal conditions could be brought about, the industries of the country could operate normally for a long period to take care of the markets of this country, to say nothing of the markets in other countries. Normal operation of the country's industries would furnish employment to labor generally, revive markets, and increase the general buying power which the country needs. A reduction of production costs is essential to this result.

Freight rates are an important element of manufacturing and production costs. In a large country like ours, with its long hauls and wide distribution of producing industries, it is obvious that the freight burden in its relation to other

cost factors must be stable. Until within the last few years the tendency of the factor of transportation cost in relation to other factors has been downward. Recently it has been upward, and it is now out of proper relation to other factors. Rates must be gotten back to the proper relation to other things. They must come down, and whatever is necessary to bring them down must be done.

Many of the cost factors of railway operation which forced higher rates have been substantially reduced within the last year. The most important item of cost is labor. The carriers tell us that they are now paying extravagantly high wages. If we may rely upon their statement in this regard, they are not operating their properties economically and efficiently and, therefore, operating costs may further be reduced. We have no jurisdiction over wage controversies, but we may take note of the admission of the carriers and require them to find out whether their wage scales are too high, and to lower them if they can.

If upon the presentation of the facts as the law requires, the Labor Board decides that wages are not too high, those using transportation will have to pay the bill of the organized railway employees. The shippers of the country and labor generally are entitled to their day in court, and the carriers are the ones to present their case, for carriers, shippers, and laborers employed in all of the country's industries which use the carriers are interested in this issue. It is true that the wage burden has increased enormously during the last few years. For the calendar year 1916 it was, for Class I railroads, \$1,468,576,394, which was the largest amount paid for any year in the history of the railroads to that date. Following the year 1916, increases, all of which were made through government agencies, beginning with the Adamson act, followed by orders of the Railroad Administration during 1918, 1919, and the first two months of 1920, and finally the decision in July, 1920, by the Railroad Labor Board, resulted in bringing up the total compensation bill of these railroads for the year 1920, based on the last eight months of the year, to an amount exceeding \$3,900,000,000. They have been reduced by the wage board as of July 1, last, by 10 or 12 per cent.

The significance of these wage increases was brought out upon the hearing in this case where it was testified that if the wage burden, as it rests after the decrease of approximately \$400,000,000, as of July 1, were to be reduced by an additional \$1,000,000,000, it would be possible for the carriers to reduce freight rates approximately 18 per cent and still earn the return upon the investment in their property which the transportation act contemplates. Such a reduction, of course, would be reestablish railway credit, enable carriers to secure the moneys urgently needed to maintain adequate service, and relieve the distress of disappointed multitudes of investors in railway securities. It was further testified that after such a reduction the organized railway employees would still enjoy an increase which compares favorably with the increase which organized labor in other industries has enjoyed and, of course, far in excess of increases enjoyed by labor generally. It was further testified that such an increase would be in harmony with the increase of the cost of living which has taken place.

Carriers Should Reduce Costs

The right and power to reduce wages rests initially with the carriers. They have no excuse for maintaining the wage levels which they say are too high. If they believe them to be too high, they should take steps to reduce them. Until they make the effort they are not entitled to refer to wages as excusing high rates. The Labor Board was created to determine such questions and shippers have the right to require carriers to resort to that tribunal. Until they have the protection of an award made under existing conditions by the Labor Board, they cannot justify the present rates. On the

face of things, there is nothing in the wage situation to justify a rate level entirely abnormal and which is menacing the country's welfare. The carriers should bring the general economic situation to the attention of the Labor Board.

Some urge that we must take wage conditions as we find them, and not contemplate further wage reductions in dealing with rates. On the argument it was pointed out to us by the representatives of the petitioners that such is not the law. They urged upon us that it was the duty of the commission to consider the broad economic question as to what rates the industry of the country could stand, and that our finding in this regard should be taken into consideration in the fixing of wages. I am inclined to the view that the opinion thus urged upon us by counsel for the petitioners is sound, although it was new to me. It seems to me there is warrant for their view in action which the Labor Board has heretofore taken.

The transportation machine of the country is being used for the benefit of the shippers and railway employees, and the owners of the machine are receiving much less for its use than the law says they are entitled to. In considering what railway employees should receive, regard should be had for what the shippers can afford to pay. The record in this case shows that the Labor Board has declined to give consideration to this broad basic question, and has refused to hear shippers while considering wage controversies. The question as to what rates are fair and reasonable is with us. If the broad economic question as to how much shippers can afford to pay is a question to be determined by us when we fix fair and reasonable rates, it will follow that the Labor Board, in considering wages, would regard our finding as one of the relevant circumstances to be taken into consideration in fixing wages. In this aspect of the case there apparently is necessity for a determination by us as to the proper rate level, and we are authorized to order a rate reduction without waiting for wages to be reduced, to a point where the carriers can prosper under the rate level which we prescribe.

Brooklyn-Richmond Freight and Passenger Tunnel

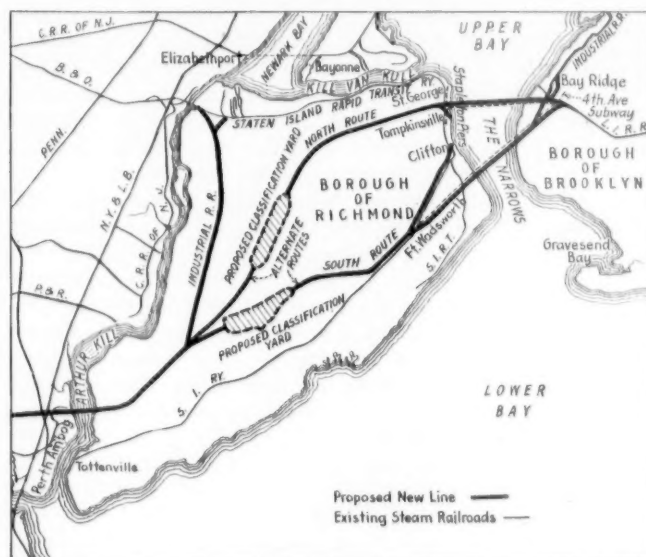
THE BOARD OF ESTIMATE AND APPORTIONMENT of the City of New York has recently submitted its preliminary report on the construction of a tunnel or tunnels to connect Staten Island with Brooklyn. The general plan which has been submitted includes in addition a system of belt lines, industrial tracks and other facilities necessary to create a greater unification of the present steam railroad and electric traction lines leading in and out of New York City.

It is proposed to construct an outer belt line, somewhat similar to the outer belt line suggested in the report of the New York-New Jersey Commission, intersecting all the New Jersey roads and running from Haworth, N. J., on the north, via Paterson, N. J., the Passaic river, Short Hills-Summit, Scotch Plains and Metuchen to Perth Amboy on the south. Crossing Arthur Kill on a high level viaduct, the line bisects Staten Island from south to north for its entire length and connects with the proposed tunnel under the Narrows. Two locations have been submitted for the freight tunnels across the Narrows as well as for two classification yards and tracks in the north half of Staten Island. These are shown in the illustration. The plan includes connections on the Island with the existing Staten Island Rapid Transit Railway for access to the new Stapleton piers, and for purposes of passenger business.

Passing under the Narrows the line descends on one and two per cent grades with the latter as a maximum, passes under the channel and rises on a two per cent grade into Bay

Ridge, Brooklyn, and to connections with the Long Island Railroad, over which access can be had to the Jamaica Bay development, to points in Long Island, the Bronx and New England, and to a proposed industrial railway along the Brooklyn waterfront.

The operation of the plan includes the idea of having the New Jersey roads make suitable classifications at divisional yards, dispatching freight destined for Long Island in solid trains. Any further classification can be handled at the yard on Staten Island. Steam power will be used in the west, but east of the Staten Island yard, or Richmond yard as it is called, the line will be electrified. To complete the unifica-



Map of Staten Island, Showing the Alternate Locations of the Proposed Line, Tunnels and Connections

tion of the railroad facilities it is proposed to connect the New York Central and the New York, New Haven & Hartford by a double track tunnel about 3.7 miles long running from a point approximately opposite West 168th street in Manhattan, under the Harlem river to about Longwood avenue in the Bronx, where the tracks would be arranged so as to permit of a head-on connection with the New York Connecting Railroad over the Hell Gate bridge, or to the New Haven's yards at Oak Point. A connection on the east side of the Harlem river will provide direct rail service to the proposed municipal terminal market and permit of the development of a marginal belt line railroad in the Bronx, upon which jointly operated stations could be located at points convenient to the existing bridges, thereby serving both Manhattan and the Bronx.

The decision as to the location of the tunnel across the Narrows hinges on the question of the relative costs and practicability of the trench method and the shield method of tunnel construction, one site being favorable only to the shield method while the other is as yet doubtful, though the belief is that the trench method can be used. To meet the local traffic needs of Staten Island, it is expected to start shortly with the construction of a passenger tunnel to connect into the Fourth Avenue subway in Brooklyn, with terminals in Staten Island and connections with that Island's transit facilities.

The total cost of the project has been estimated at \$141,000,000, subdivided as follows: Cost of the belt line and classification yard, \$42,000,000; freight and passenger tunnels and connections, \$51,000,000; elevated industrial railroad along Brooklyn water front, \$25,000,000; and the tunnel or connecting link between the New York Central and the New Haven, with all connections, \$23,000,000.



A \$3,000,000 Fire—Photo from International

Fire Protection Association Meets in Chicago

Annual Meeting Included Numerous Papers and Lively Discussion
of Means of Reducing Losses

THE Railway Fire Prevention Association opened its eighth annual convention at Chicago on the morning of October 18. Meetings were held at the Hotel Sherman and continued for three days with W. F. Hickey (N. Y., N. H. & H.) presiding and about 150 members and visitors present. The gathering was addressed at the opening session by J. E. McDonald, chief of the Chicago Fire Prevention Bureau, the association thereafter applying itself diligently to the consideration and discussion of the numerous reports and papers presented.

President Speaks on Problems of the Association

In his opening message Mr. Hickey, president, discussed the progress of the organization and the problems confronting it during the past year, calling attention particularly to the importance of co-operation on the part of the managements and of enthusiastic interest on the part of the members in the work of fire prevention.

"The past fiscal year," he began, "has been a very successful one for the Railway Fire Protection Association, notwithstanding the critical period through which railroads generally have been passing. We have kept our membership intact although some of the smaller lines have felt it necessary to withdraw temporarily on account of curtailment of expenses, but the resignations have been offset to a large extent by new members and now that railroad executives are appreciating more and more what the Railway Fire Protection Association is accomplishing and the necessity for an organization of this kind, it is confidently expected that the next year will show a still larger membership roll."

Speaking of the problems confronting the organization and the railroads at the present time and the most effective method of meeting them, Mr. Hickey said: "Railroad owners will not be satisfied unless the present waste is reduced and, of course, they have a duty in providing fire resistive structures and fire fighting appliances, but until the general financial conditions improve and those things can be provided wherever needed, we must exert every effort to make the best of existing facilities and conditions. However," he went on to say, "we should not defer an improvement where the condition is acute and many features of improvement can be taken care of as ordinary maintenance items. In any event, we should endeavor to have our managements provide im-

proved facilities gradually and it is suggested that if not already being done, each railroad prepare a budget of fire protection items each year, stressing the most urgent and important and work toward the accomplishment of the budget. The fact that the number of fires was reduced but the amount of loss showed an increase in 1920 as compared with 1919 may indicate that better facilities and more efficient means of fire extinguishing would have reduced the loss. It is our work to endeavor to improve our construction, have adequate water lines, piping, fire pumps, sprinkler systems, and other features of protection provided, and at the same time bring maintenance and house-keeping conditions up to the highest standards so as to eliminate the causes of fires."

"This work," said Mr. Hickey, "can be done better and with more facility as an association than by the individual members working on their own lines, but it means co-operation and co-ordination among the members of the Railway Fire Protection Association. To that end," he said, "let us continue to give our best efforts to the association, meet more frequently during the year—take an enthusiastic interest in the work of the association and enlist as many new members as possible."

Resolutions Adopted

Following the president's address and the report of the secretary and that of the executive committee (when it was learned that the association now has a membership of 210, representing 77 roads) three sets of resolutions were adopted by the organization. One, presented by Robert Scott (A. C. L.), after directing attention to the fact that a very considerable part of the 80 per cent of fire loss in the country attributable to carelessness is the direct result of the smoking habit, recommended that it be recognized as "a moral obligation of all manufacturers or packers of tobacco to enclose with their product fire hazard warnings."

A second resolution, presented by G. L. Ball (St. L.-S. F.), after reciting the hazard from oil on water in harbors, recommended that railroads support the passage of legislation to eliminate it, while the third, presented by E. B. Berry, (Sou), after dwelling upon the enormity of losses by fire on railroads, the importance of its reduction and the indispensability of co-operation, addressed itself to the attention

of railroad executives in 10 expressions, one of which requests that "executives make manifest and proclaim their interest in fire prevention and protection, give active support and direction to enforcement and acceptance of individual responsibilities as a matter of daily duty and encourage the inauguration of a system of education to develop comprehensive interest in fire prevention;" and a second of which recommended "that all fire prevention activities on each railroad be co-ordinated through a central administrative officer for the promulgation of rules and regulations for the protection of property and guidance of officers and employees."

The resolution concerning the oil hazard in harbors gave rise to a lively controversy as to the actual danger presented from this source. W. F. Steffens (N. Y. C.) opened the discussion by making a detailed recitation of his experience and study with the oil scum found on water in New York harbor and contending that such oil was more of a fire retardant than a fire hazard. J. B. Lalor (Lalor Fuel Oil System, Baltimore), however, contended that the experience which Mr. Steffens had with piling in salt water was anything but a criterion of what might happen in fresh water and stated very emphatically that the sample of oil which Mr. Steffens exhibited would burn as readily as gasoline, once the temperature had reached 600 deg. William McGrath (D. L. & W.) stated that timbers in the very condition described by Mr. Steffens had burned at the recent pier fire at Hoboken. On the other hand J. R. Richards (S. P.) spoke of finding conditions on the Southern Pacific comparable to those described by Mr. Steffens but distinguished between new oil and old oil. Owing to the evident diversity of opinion among the members, therefore, together with the importance of the subject, it was decided to make the investigation of the subject the work of a special committee.

Reduction in Number of Railway Fires

G. R. Hurd (I. C.) presented the statistical report. This consisted of the presentation of an elaborate collection of figures and information on railway fires obtained from 75 roads, together with the classification of fires and a suggestion as to the method of prevention in each case. According to this report, 7,975 fires, representing a loss of \$10,563,914, occurred during 1920 as compared with 9,144 fires and the attendant loss of \$8,516,473 during the year 1919. "A total of 442 of these fires reported for 1920," the report went on to say, "were caused by the spreading of fire from adjacent property." This figure and the loss of \$594,706 which it represents is compared with 457 fires and \$1,158,860 loss in 1919. Electric wiring was reported as having caused 108 fires in 1920 with an aggregate loss of \$253,895 as compared with 81 fires and a loss of \$159,709 in 1919. Forest fires gave rise to 32 railroad fires in 1920 as compared with 27 in 1919, a comparison of the losses showing an increase of \$66,292 during 1920 over 1919.

Friction, hot boxes, brake shoes, etc., were reported as having caused 113 fires in 1920 with a loss of \$135,815 as compared with 84 fires and a loss of \$206,324 in 1919. Heating appliances and flues were reported as having caused 854 fires with a loss of \$547,097 in 1920 as compared with 840 fires and a loss of \$811,378 in 1919; and a total of 114 fires representing a loss of \$288,915 were reported as having resulted in 1920 from incendiary causes as compared with 92 fires and a loss of \$145,951 in 1919. Lightning was reported to have caused 55 fires in 1920 as compared with 64 in 1919; sparks from locomotives caused 1,821 fires to railroad property in 1920 with an attendant loss of \$1,085,758 as compared with 3,080 fires in 1919, while hot coals from locomotives caused 390 fires with an attendant loss of \$299,253.

Smoking resulted in 223 fires with a property loss of \$128,301 for 1920 as compared with 233 fires in 1919 and spontaneous combustion was reported as having caused 218 fires with a loss of \$1,927,856 as compared with 178 fires

and an attendant loss of \$162,352 in 1919. As to the other causes of fire, torches were reported to have caused 135 fires in 1920, tramps 172, and wrecks 100, while 1,538 fires were reported to have resulted from unknown causes. Referring to the report in his address, President Hickey placed emphasis upon the fact that the number of fires was reduced from 9,194 in 1919 to 7,975 in 1920, rather than upon the fact that the total losses increased from \$8,500,000 in 1919 to \$10,500,000 in 1920, his contention being that the number of fires is a fairer test of accomplishment in prevention work than the actual fire losses inasmuch as all fires have small beginnings.

Extensive Report on Shop Protection

The most elaborate report presented at the convention was that of the Shop Committee, of which J. R. Peters (Pennsylvania) is chairman. This treated of all phases of shop fire prevention and the protection of shop units and was prepared with a view to its incorporation in a handbook contemplated by the association. The first part of the report dealing with locomotives was presented last year, so that the convention directed its attention this year only to that portion dealing with freight and passenger car shops, paint shops, woodworking buildings, upholstering shops, bumping and lacquering shops, battery-recharging buildings, tanks, reclamation plants, chemical laboratories and outside fire protection.

Standardizing Hose Couplings

The question of standardizing hose couplings was discussed somewhat during the consideration of the report of the Shop Committee, following the contention raised by E. W. Osborne (N. P.) that a conflict existed between a previous year's report, which advocated the National Standard coupling for all railroad fire connections, and the statement in the report under consideration which advocated the interchangeability of hose couplings with local fire department standards. The subject assumed a position of particular prominence when later on in the convention a paper on Recent Progress in the Standardization of Hose Couplings was presented by E. R. Townsend of the National Board of Fire Underwriters.

In his talk Mr. Townsend endeavored to impress upon the railroads the importance of standardization in fire connections and pointed out the influential position they occupy in many sections of the country and urged them to lend their support to this movement. He stated that there are in use throughout the country 30 or more different size couplings as a result of which conflagrations occur regularly where the equipment of one city or industry is useless to the other.

F. H. Elmore (Hutchinson, Rivinus & Co., Philadelphia) called attention to the fact that while the Association had approved the National Standard, many of the roads were hesitating about standardizing both because of their dependence in many places upon towns using other standards and the objections to using adapters. This position of some of the railroads was given added emphasis when S. B. Polard (S. P.), stated that all Pacific coast cities used a Coast Standard of coupling, and when W. F. Steffens (N. Y. C.) showed the futility of adopting the National Standard in New York City until that city had also adopted it. It developed, however, that many railroads do use the National Standard and a keen interest was taken in tools exhibited by Mr. Townsend whereby a large proportion of existing hose couplings may be adapted inexpensively and speedily to take the National Standard thread.

Handbook on Handling Explosives Prepared

One of the most valuable contributions presented at the convention was the report made on the handling of explosives and other dangerous articles. This report, prepared in hand-

book form by W. F. Topping, of the Bureau of Explosives, presented concise and authoritative instructions covering the packing, storing, shipping, inspecting and otherwise handling of explosives and all other dangerous material, together with a description and an enumeration of the characteristics of such materials and the proper methods of meeting situations precipitated by wrecks, fires, etc.

Fire Prevention and Protection at Coaling Stations

W. E. Cathcart (Pennsylvania) read the report of the Committee on Fire Prevention and Protection at Coaling Stations. It was in the nature of a revision of the 1915 specifications in view of their incorporation in the Association handbook. The report addressed itself decidedly in favor of electricity for power purposes, reinforced concrete construction, the thorough cleaning of coal bins at least once a month; and also the installation of automatic dry pipe sprinklers, as against open head sprinklers or perforated pipe systems. The report also provided a form of inspection record which it recommended to be made out weekly to cover the condition of the sprinkling system.

Considerable discussion ensued upon the reading of this report, the greater portion of which referred to sprinkling systems in these structures and upon which a lively controversy developed. Taking objection to the stand of the committee in that open head sprinklers or perforated pipe systems are not to be recommended, E. W. Reilly (Erie) contended that open head sprinklers are entirely satisfactory for fires below the roof, while another member supported the system of perforated pipe and A. Murphy (M. R. & B. T.) approved of manually controlled systems at isolated points. In support of the committee, of which he is a member, W. H. Klin-sick (C. B. & Q.) and also J. R. Peters (Pennsylvania) emphatically condemned the open head and perforated sprinklers as presenting a severe drain on water supplies and reducing the effectiveness of streams when they are needed. W. F. Hickey (N. Y., N. H. & H.) called attention to the fact that the Underwriters do not approve of open systems. Mr. Hickey said that the difference in cost between an automatic and an open sprinkling system was negligible.

Fire Prevention on Foreign Roads

In a paper on the practices of foreign roads L. E. Wilcox (John Page & Co.) pointed out the relatively small losses suffered from fire in foreign countries and attributed this largely to the little wood work and combustible material used, the abundance of rainfall and the greater vigilance customary by individuals. A detailed description of the prescribed system of fire protection and prevention on one of the typical English railroads indicated that although the equipment and methods differ somewhat from those in this country and might even be considered antiquated in some respects, the instruction in fire prevention is comprehensive and exact and responsibility is fixed to a high degree.

Protecting Tunnels From Fire

S. B. Howatt's (S. P.) paper on the fire protection and prevention in tunnels was especially instructive and interesting. "Tunnel protection and prevention," he said, "is in a class by itself. We have not the room to combat the flames. They can only be approached from the two ends and usually one end, and sometimes both are so hot that it is a very difficult task to work near them." Mr. Howatt then went on to state the difficulties in the way of putting out fires in tunnels owing to the chimney-like form of construction and the facility of air to gain access to the tunnel through crevices and cracks in sufficient amount to maintain a hot fire, even when the ends have been blocked. He also pointed out the practical impossibility of putting out a fire in a tunnel after it had once reached the tons of loose material and timber that are often placed behind the lagging in timber tunnels to fill the pockets occurring at the time of the construction.

and emphasized his statements by describing several fires which had occurred on his road.

Mr. Howatt condemned the practice of placing any reliance in such instrumentalities as sprinkling systems and fire-proof paint, however adaptable they are to other kinds of fire prevention. The problem, he said in effect, is rather one of preventing fire from entering the tunnel from an outside source, of preventing wrecks from occurring in the tunnel, and of eliminating man carelessness." Singular though it is, Mr. Howatt stated that no tunnel fires, in his knowledge, had arisen on the Southern Pacific from locomotives. Clearing away all brush for a distance 100 ft. back of the entrance, whitewashing wood portals and 50 ft. or more of the barrel, establishing an adequate water supply and piping it into the tunnel when possible, excluding all open lights from the tunnel wherever electricity is available and insisting upon the close inspection of tunnels by all parties having occasion to work inside of them, are some of the suggestions which Mr. Howatt made to prevent fires.

While such preparations would afford a reasonable protection against tunnel fires, Mr. Howatt emphasized the desirability of replacing timber with concrete as the only sure protection. On the Southern Pacific $6\frac{1}{2}$ miles of tunnel, Mr. Howatt stated, have been concreted in the last 15 years, the plan being to concrete the portal and the first 50 ft. of the barrel of the most hazardous tunnels, also to apply concrete to the bad spots inside the barrel. The section inside the tunnels, Mr. Howatt pointed out, serve a valuable purpose from a fire protection standpoint inasmuch as they act as fire walls. During the discussion this report was commended as an unusual contribution to both fire prevention and construction engineers.

Motor Truck and Locomotive Hazards

Other reports read before the convention included one of a committee on the Storage and Handling of Gasoline and Electric Motor Trucks in Freight Depots and Terminals and one from the committee on Locomotive Hazards. E. J. Reilly (Erie) presented the report on electric and gasoline trucks. It favored the use of electric trucks for all interior work owing to the tendency of gasoline equipment to drop oil and to backfire. In discussing this report J. P. Clear (I. C.), in reply to an inquiry as to whether fires have ever arisen from the use of trucks, told of two fires started in cotton by electric trucks, the wiring of which had become abraded sufficiently to cause a short circuit. In discussing the advisability of permitting gasoline trucks to operate inside of buildings, W. F. Hickey (N. Y. H. & H.), among others, emphasized the fact that where such trucks are permitted to enter buildings, operators should not be allowed to stop the engine, thus reducing oil dripping and back-firing to a minimum.

E. N. Floyd (C. C. C. & St. L.) read the report on locomotive fire hazards. It comprised a comprehensive discussion of the mechanical features of locomotives with respect to their connection with the fires attributed to locomotives and directed particular attention to the consideration of front end screens, ash pans, fire doors and combustion tubes. The report also discussed comprehensively the fire hazard of the fuel oil burning locomotives.

The report elicited considerable controversy by prescribing screens or wire mesh in the place of perforated plates in front ends. E. A. Ryder (B. & M.) stated that experience on the Boston & Maine had proved the perforated plate to be much superior to wire mesh from a standpoint of wear as well as draft and it is considered satisfactory from a fire prevention standpoint. Referring to the position of the committee and the statement of A. Murphy (M. R. & B. T.) that the perforated plate presented altogether too large an opening to sparks, E. W. Reilly (Erie) stated that in Canada, where railroads are required to secure permits before using perforated netting, the netting adopted by the Erie was

passed upon favorably. On the other hand, J. D. Lodge (Railroad Insurance Association) directed the attention of the supporters of perforated plate to the fact that the Master Mechanics' standard front end arrangement calls for wire netting in the place of perforated plates and H. B. Pollard (S. P.) emphasized the importance of being on the conservative side, owing to the importance of reducing the number of fires attributed to locomotive sparks.

Discussion of Several Subjects

Pursuant to the plan of the organization to institute a general discussion of special subjects at each convention, a portion of Wednesday was set apart for this purpose and papers were read on the following subjects: Organization of employee fire brigades; fire fighting equipment recommended at outlying points; methods and difficulties of enforcing Bureau of Explosive regulation on safe handling of inflammables; locomotive sparks as fire hazards; methods of securing co-operation of foremen and employees in fire prevention, and what an inspector should look for in sprinkler installations. This session was presided over by Z. B. Claypool (St. L.-S. F.) in the absence of the chairman, J. L. Walsh (M. K. & T.).

Of the several discussions instituted, that on the organization of fire brigades stood out prominently as the most spirited discussion of the convention. Initiating this discussion W. F. Barnard (Wabash) stated that the three largest shop units of the Wabash were provided with fire brigades, the members of which were paid extra compensation in the way of an extra day's time each week. The Erie, E. W. Reilly pointed out, had a very extensive and effective organization until two years ago. This organization was instituted 15 years ago, and the interest was maintained by the holding of annual athletic tournaments and issuing annual passes over the road to the members of the brigades. It is expected that the holding of tournaments on the Erie will be resumed next year.

On the Rock Island L. F. Shedd stated that no difficulty was encountered in keeping up an efficient fire fighting organization at the shops. This road also compensates the men for their membership in the organization by issuing annual passes and allowing an extra hour's time a week, except at Silvis where a department is maintained exclusively for fire protection service. C. A. Hayes stated that the success of the U. S. Steel Corporation in maintaining efficient fire brigades was to be attributed largely to the fact that each member was given a badge to identify his connection with the department, to which Mr. Reilly responded with the statement that the Erie also furnished badges. During the discussion, it was brought out that regardless of the efficiency of the local shop fire brigade, it should only be considered in the light of a first aid remedy—not to the exclusion of the municipal fire department.

R. R. Hackett (B. & O.) started the discussion on fire fighting equipment and its care at points where no organized employee fire brigade is maintained. Mr. Hackett called attention principally to the importance of devoting special study to each condition, owing to the variety of conditions met on railroads and to the importance of efficient inspection by competent inspectors of all fire fighting equipment and property subject to fire hazards. The discussion developed the fact that the barrel and bucket still furnish the most effective fire fighting equipment at many outlying points, although in some localities it has been necessary to use fire extinguishers in place of water barrels for sanitary reasons.

James Scott (M. K. & T.) initiated the discussion on methods and difficulties in enforcing Bureau of Explosive regulations for the safe handling of gasoline and other inflammable materials. Mr. Scott stated that the various refineries and loading racks along the M. K. & T. always invited inspection of their property, but that about 10 per cent

of them are somewhat lax in carrying out regulations. As a result of the negligence found on the part of casinghead plants in some places and of other conditions, Mr. Scott cautioned against permitting any switching by train crews at night, owing to the possibility of fires from sparks and open flame lanterns.

Locomotives Only Partially to

Blame for Right-of-Way Fires

On the subject of locomotive spark fire hazards and their relation to right-of-way fires, wooden trestle fires, etc., a particularly interesting discussion developed, of which J. R. Richards' (S. P.) paper was the most prominent feature. Referring to conditions on the Southern Pacific, Mr. Richards endeavored to show, among other things, that the popular conception that locomotives are to blame for 90 per cent of the fires along the right-of-way is not well founded and to this end he told of his experiences with cigarettes, greasy sacks, the carelessness of trespassers, the carelessness of trainmen in handling fires in cabooses, the burning of old ties and the disposition of waste from journal boxes, also the relation to these fires of motor cars and incendiary practices.

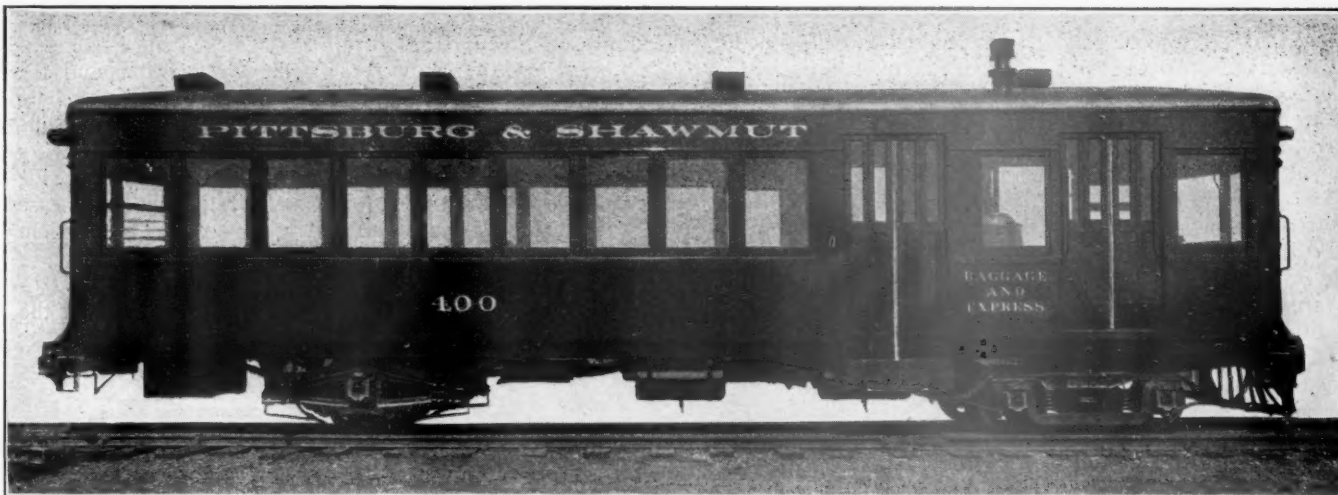
One of the most interesting developments of this discussion was reference to the survival of a creosoted bridge on the Nashville, Chattanooga & St. Louis, as described in the *Railway Age* of September 10. W. F. Hickey (New Haven) stated that he was given to understand by Dr. Von Schrenk that there was an increase in the inflammability of creosoted timber over untreated timber during the first six months, after which the inflammability decreased. S. B. Howatt (S. P.) supported this statement but recalled instances where creosoted bridges had burned to the ground and F. H. Elmore, skeptical of the value of creosote, stated that during a certain test made of fire-proof paint, neither the fire-proof painted specimen nor the creosoted specimen showed themselves immune from the test fire. W. F. Steffens referred to the incident as an important one in the light of its bearing on bridge construction and stated that the New York Central laboratory is now making a study of creosoted timber from this standpoint.

On the subject of the method of securing co-operation of foremen and employees in maintaining clean premises and removing fire hazards, A. Murphy (M. R. & B. T.) stated that the co-operation of the officers was of primary importance, after which was to be remembered the necessity of thoroughness of inspection, of fair play with the men in charge of the properties inspected, the constant remembrance that the fire inspector's position is one of advising rather than one of criticising; also the importance of cultivating a pleasing personality and the importance of dressing for the occasion.

J. H. Wilde (Railroad Insurance Association) presented a paper on what an inspector should look for in automatic sprinkler installations. He referred to the necessity of proper installation of the equipment, the importance of an ample volume of water under reliable pressure and the constant inspection of the system against the effects of time and of the carelessness of the workmen in buildings.

The Election of Officers

At the annual election on Thursday afternoon the following were selected: G. L. Ball (St. L.-S. F.), president; E. A. Ryder (B. & M.), vice-president; and R. R. Hackett (B. & O.), secretary and treasurer. B. F. Mace (B. & O.) was elected an honorary member and such vacancies were filled as to make membership of the Executive Committee consist of the following: R. H. Newbern (Pennsylvania) G. R. Hurd (I. C.), Robert Scott (A. C. L.), E. B. Berry (Sou.), W. F. Hickey (N. Y., N. H. & H.), W. S. Wollner (N. W. P.), and W. S. Topping (Bureau of Explosives).



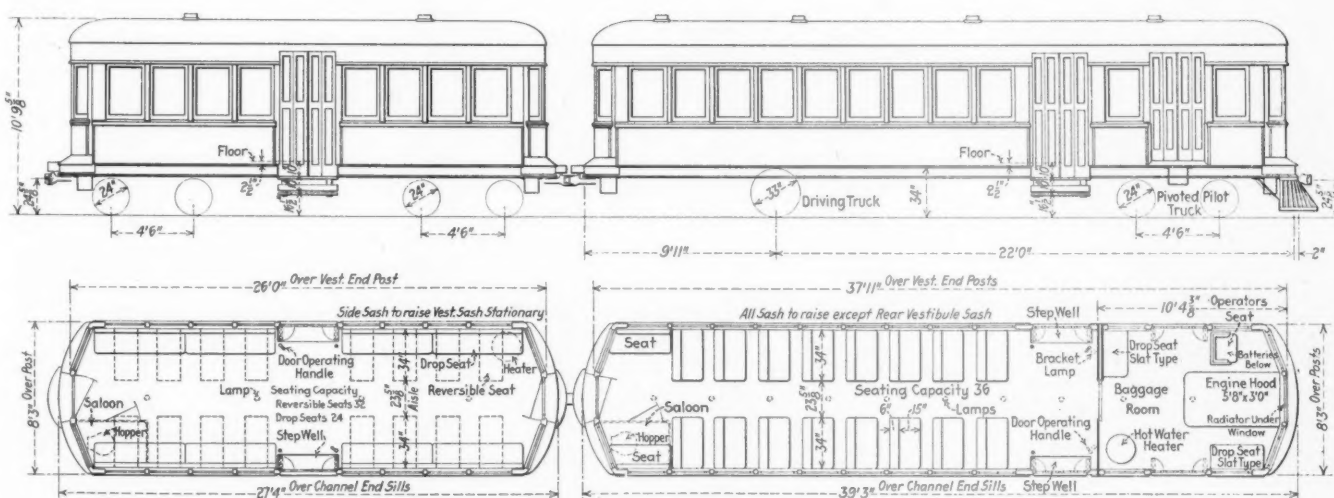
One of Three Bowen Motor Cars Recently Delivered to the Pittsburg & Shawmut

Bowen Gasoline Motor Driven Passenger Car

Arrangement of Power Transmission System and Rear Truck Are
Features of Design

A GASOLINE MOTOR driven passenger car particularly adapted for use on branch or short line steam railways, which involves a unique combination of standard automobile practice with the essential features of railway rolling stock design, has recently been developed by the Bowen Motor Railways Corporation, St. Louis, Mo. The car shown in the illustration is one of three for the Pitts-

burg & Shawmut, the construction of which was recently completed by the Barney & Smith Car Company. The features of construction of particular interest in this car are the arrangement of the power transmission system and the design of the rear truck, through which the power is transmitted to the rail.



Elevation and Floor Plan of Motor Car and Trailer

burg & Shawmut, the construction of which was recently completed by the Barney & Smith Car Company. The features of construction of particular interest in this car are the arrangement of the power transmission system and the design of the rear truck, through which the power is transmitted to the rail.

The power plant is a four-cylinder automobile motor with $4\frac{1}{2}$ -in. by 6-in. cylinders, capable of developing 62 brake horsepower at 1,600 revolutions per minute, which is attached directly to the underframe. From the motor clutch, which follows the lines of automobile practice, power is transmitted

motion and of 1.085 to 1 in reverse. From this transmission to the rear axle gear case power is again transmitted by a longitudinal shaft.

The cast steel gear housing of the rear axle is built in two sections to permit easy inspection and repair of all gears and pinions. This construction makes it unnecessary to disassemble the truck in case any gears are to be removed. The arrangement of the combination bevel and spur gears is such that the gear ratio of the drive and, therefore, the car speed can be changed at any time by replacing the bevel gear set by another of a different ratio. From the motor to

the rear axle gear case the transmission devices and shaft connections throughout follow standard automobile practice, the details conforming to the standards of the Society of Automotive Engineers.

Compressed air to operate the brakes is provided by an air compressor mechanically driven by a longitudinal shaft from a power take-off located at the main transmission.

The two-wheel driving truck under the rear end of the car is of unique construction, combining the requirements of a fixed angular relationship between the center line of the axle and the center line of the car with a complete unity of construction which permits the rear axle with the brake rigging and gear case to be removed from the car intact. This truck is built up of cast steel side frames which are joined at the ends with cast steel cross pieces of I-section. The side frames are provided with pedestals for standard M. C. B. journal boxes. The gear case which surrounds the center of the axle is rigidly supported by two longitudinal members of rolled channel section, bolted to the underside of the truck frame end pieces. Lugs on the truck frame provide for the support of two brake beams, one in front and one at the rear of the driving wheels, which are fitted with M. C. B. standard brake heads and brake shoes. These are



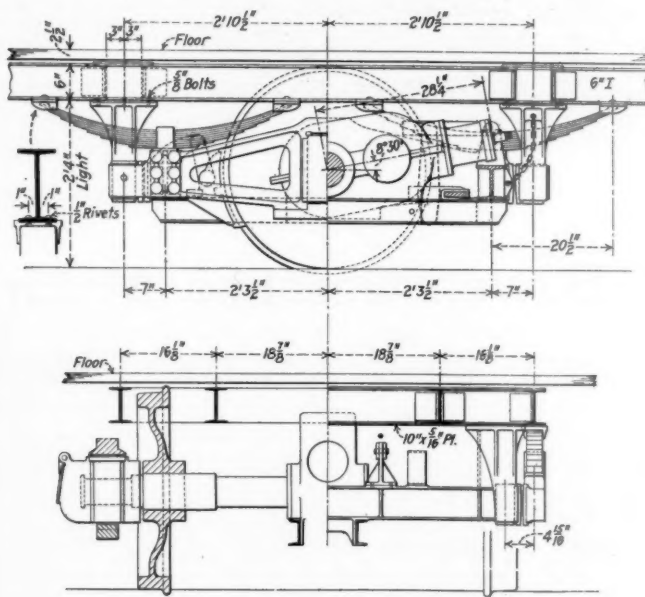
Interior View of Passenger Compartment

connected with simple clasp brake rigging, operated by Westinghouse semi-automatic air brake equipment.

The alinement of the truck with respect to the car body is maintained by four column castings bolted to the underside of the car underframe. These castings are provided with vertical wearing shoes on their inside transverse faces and outside longitudinal faces which bear against corresponding wearing shoes secured to the end pieces of the truck frame and to projections from the side frames. Lateral alinement is thus maintained at four points on the truck frame and the driving thrust in either direction is transmitted to the car body at two points through these shoes, which are free to move vertically with respect to each other.

The weight of the car body is transmitted to this truck frame through four semi-elliptic springs the center bands of which rest in suitable pockets in the truck frame and the ends of which bear against small flanged wearing shoes riveted to the underside of the car body underframe. The longitudinal distance between the front and back truck spring pockets is 4 ft. 7½ in., which is great enough to provide considerable transverse torsional stability to the gear case without sacrificing the complete freedom of the truck from attachment to the car body.

The engine is located under a hood at the front end of the car with the radiator let into the end wall just under the



Details of Rear Axle and Truck

front window. The hood is asbestos lined in order to permit the space over the engine to be filled with small baggage or express packages, thus conserving baggage room floor space.

With a 10-ft. 4⅜-in. baggage compartment and 36-in.

DETAILS OF OPERATION OF THE BOWEN MOTOR CAR

Month	March	April	May
Days operated	31	30	31
Total miles	3,987	3,960	4,092
Passengers carried	4,240	3,721	2,780
Gross revenue	\$1,215.82	\$1,146.44	\$844.40
Gallons of gas	677	599	620
Cost of Gas	\$169.25	\$144.76	\$168.00
Cost of oil, grease and coal	11.16	18.53	15.00
Operating labor	260.00	207.80	183.68
Maintenance labor and parts	16.35	7.30	13.20
Total expense	\$461.71	\$378.39	\$379.88
Net cash earnings	\$754.11	\$768.05	\$464.52
SUMMARY			
Gross earnings per mile .....	.305	.289	.206
Cost of operation per mile .....	.115	.095	.092
Net earnings per mile .....	.190	.194	.114

The population on the line of above road is 175 per mile.

door openings at the sides of the passenger compartment, the car has a seating capacity of 36 persons. Other arrangements can be used seating as many as 43 passengers. The power plant is considered large enough to handle a trailer on grades not exceeding three per cent and a design has been developed for such a car 27 ft. 4 in. long over the channel undersills, which may be provided either with reversible seats or longitudinal drop seats. In the former case a seating capacity of 32 may be provided while in the latter case the seating capacity is 24. With the exception of the interior finish, the entire construction is of steel, the underframe or chassis, the longitudinal members of which are 6

ft. I-beams, being completely standardized. Changes in the body construction and arrangement may be made to suit local requirements. The car illustrated weighs 28,000 lb. complete.

The first car built by the Bowen Motor Railways Corporation was placed in service about three years ago. It has now operated over 175,000 miles and is still in service. Its performance was carefully analyzed and while no fundamental defects developed, it was considered advisable to change the later design by making changes in the size and design of the car body.

Records of the operation of these cars indicate that they can be run at a cost of about 18 cents per train mile where

the railroad train service wage scale is in effect, or 12 cents per mile under non-union conditions. Further details of the cost of operation of a Bowen motor car on the Westfield Railroad are given in a tabulation herewith.

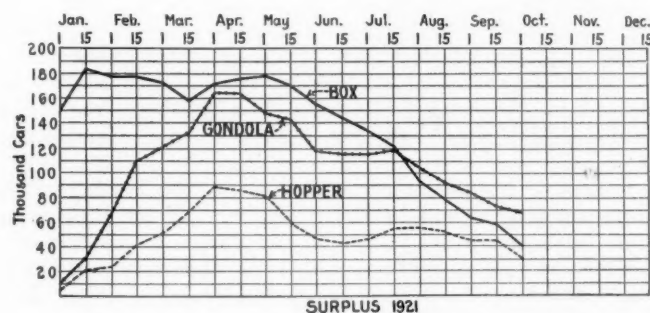
While this car is designed particularly for handling passengers, express, mail and baggage on short and branch line steam railways, it was also adapted for use on suburban electric lines where the cost of power is excessive. In new construction, the gasoline motor cars have important advantages over electric cars, eliminating the necessity for overhead wiring and the extra cost for the installation and maintenance of power stations.

Freight Car Loading Highest Since Last November

Greatest Gain in Coal Loading—Car Service Division
Issues Bulletin of Current Statistics

WASHINGTON, D. C.

REPORTS RECEIVED by the Car Service Division of the American Railway Association show that 906,034 cars were loaded with revenue freight during the week ended on October 15, an increase of 10,294 cars over the week before. This was the largest number of cars loaded during any one week since November 13, 1920, but was



112,505 cars less than were loaded during the corresponding week last year and 66,044 cars below the total for the corresponding week in 1919.

The biggest gain was in the loading of coal, which totaled 191,506 cars during the week or an increase of 11,167 cars over the week before. This was 35,165 cars under the total

number loaded during the corresponding week in 1920 and 25,910 cars less than during the corresponding week in 1919.

Loading of merchandise and miscellaneous freight, which includes manufactured products, increased 4,659 cars over the previous week, the total being 550,808. During the same week last year, the total was 563,483 cars. Shipments of forest products amounted to 53,017 cars or a gain over the week before of 3,558 cars while livestock totaled 36,210 cars, an increase of 2,137 cars compared with the week of October 8. Coke loadings increased 278 cars to a total of 6,332 cars but ore fell off 5,913 within a week to a total of 19,789 cars.

Reports also showed a decline in the loading of grain and grain products compared with the week before, the total being 48,372 cars or 5,592 cars less than the total for the week of October 8. Comparisons show, however, that shipments of grain and grain products continue to run ahead of those of last year and also 1919, the total for the week of October 15, being 7,562 cars in excess of the corresponding week in 1920 and 5,355 cars greater than during the corresponding week in 1919.

Except for livestock, which showed a gain of 1,154 cars and grain and grain products, loading of all commodities was below that for the corresponding week in 1920. Compared by districts, increases over the previous week in the loading of all classes of freight were reported from all except

REVENUE FREIGHT LOADED AND RECEIVED FROM CONNECTIONS

SUMMARY—ALL DISTRICTS, COMPARISON OF TOTALS THIS YEAR, LAST YEAR, TWO YEARS AGO. FOR WEEK ENDED SATURDAY, OCTOBER 8, 1921

Districts	Year	Grain and grain products	Live stock	Coal	Coke	Forest products	Ore	Merchandise L.C.L.	Miscellaneous	Total revenue freight loaded			Received from connections		
										This year 1921	Corresponding year 1920	Corresponding year 1919	This year 1921	Corresponding year 1920	Corresponding year 1919
Eastern	1921	8,191	3,176	46,209	1,823	4,573	2,420	63,951	81,886	212,229	248,303	237,345	229,633	271,323	259,488
	1920	5,869	2,905	58,173	4,021	8,256	10,761	48,214	110,104	212,538	212,538	207,185	116,108	151,903	150,183
Allegheny	1921	3,241	3,348	51,081	2,609	2,614	5,120	47,090	58,653	173,756	173,756	171,927	14,644	19,650	20,261
	1920	2,425	3,236	67,579	7,136	3,545	16,022	40,668	71,927	128,574	132,301	135,260	71,638	74,699	74,140
Pocahontas	1921	262	328	21,437	178	1,266	93	5,697	4,084	33,345	38,228	38,539	14,644	19,650	20,261
	1920	117	358	24,382	1,040	1,724	262	5,410	4,935	38,228	38,228	38,539	14,644	19,650	20,261
Southern	1921	3,870	2,147	24,627	486	16,054	376	39,411	41,603	128,574	132,301	135,260	71,638	74,699	74,140
	1920	2,954	2,438	28,319	1,447	18,885	3,380	36,085	38,793	132,301	132,301	135,260	71,638	74,699	74,140
Northwestern	1921	18,478	9,033	10,010	619	11,625	16,199	28,651	43,203	137,818	167,255	160,952	55,542	63,095	65,574
	1920	14,553	8,891	11,892	1,998	13,849	44,825	29,100	42,147	167,255	167,255	160,952	55,542	63,095	65,574
Central Western	1921	15,333	12,623	22,212	218	6,734	746	32,269	53,306	143,441	142,580	138,311	59,515	67,863	78,857
	1920	10,831	12,184	26,906	521	6,811	3,394	31,350	50,583	142,580	142,580	138,311	59,515	67,863	78,857
Southwestern	1921	4,589	3,418	4,763	121	6,593	748	16,396	29,949	66,577	70,461	64,579	50,444	52,550	52,010
	1920	4,626	2,582	6,812	184	7,446	634	17,930	30,247	66,577	70,461	64,579	50,444	52,550	52,010
Total all roads	1921	53,964	34,073	180,339	6,054	49,459	25,702	233,465	312,684	895,740	1,011,666	982,171	597,524	701,083	700,513
	1920	41,375	32,594	224,063	16,347	60,516	79,278	208,757	348,736	1,011,666	1,011,666	982,171	597,524	701,083	700,513
	1919	42,798	39,707	224,617	8,655	61,758	54,950	149,237	400,449	982,171	982,171	982,171	597,524	701,083	700,513
Increase compared	1920	12,589	1,479	55,276	4,707	8,943	17,424	124,708	63,948	114,074	114,074	114,074	100,000	100,000	100,000
Decrease compared	1920	.....	.....	43,724	10,293	11,057	53,576	.....	36,052	115,926	.....	.....	103,559	.....	.....
Increase compared	1919	11,166	.....	55,722	.....	12,701	24,752	84,228	87,765	86,431	86,431	86,431	102,989	.....	.....
Decrease compared	1919	.....	5,634	44,278	2,601	12,299	29,248	.....	87,765	86,431	86,431	86,431	102,989	.....	.....
October 1	1921	57,075	32,868	178,005	5,615	49,466	26,393	234,227	317,429	901,078	992,283	957,596	581,252	687,398	711,193
September 24	1921	51,848	32,933	171,474	4,946	48,702	30,333	232,312	300,757	873,305	1,008,109	995,901	569,626	693,881	684,366
September 17	1921	55,331	30,399	166,058	4,853	46,472	28,215	235,063	287,371	853,762	991,166	994,991	543,585	678,200	692,757
September 10	1921	54,457	25,108	142,049	4,599	42,145	27,632	198,516	253,612	748,118	883,415	946,970	491,512	658,454	672,337

the northwestern. The central western was the only one to show an increase over the corresponding week last year.

The summary for the week of October 8 is given in the table on the preceding page.

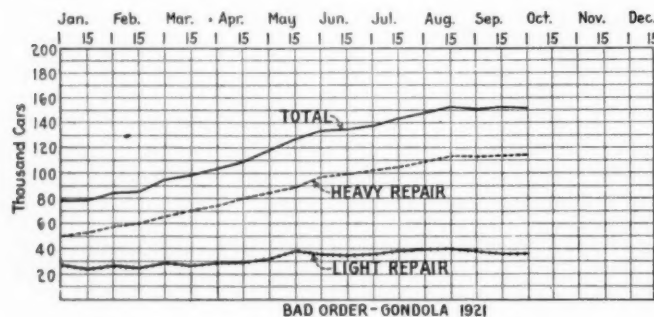
The Car Service Division has compiled an information bulletin dealing with car statistics which makes the following comments on the showing up to October 8.

Comparing with the previous week the number of cars loaded fell below for all commodities enumerated except live-stock and coal. The loading during corresponding week in October, 1920,—1,011,666 cars,—was the heaviest weekly loading of which there is record. While for the week grain and grain products loading fell off about 3,000 cars the total loadings of grain and grain products, June 1 to October 8, inclusive, were 1,002,085 cars, which is an increase of 275,118 cars over the corresponding period of 1920.

Lumber loading appears to be about on the level with the previous week and does not yet reflect the increase anticipated by reason of increased demands for equipment on the part of the lumber loading roads. Forest products loading is now about 15 per cent below that of last year. There is brisk demand for cars for increased loading of cotton, tobacco and general merchandise.

Coke and ore loading are at an extremely low ebb due to the continued inactivity of the steel mills.

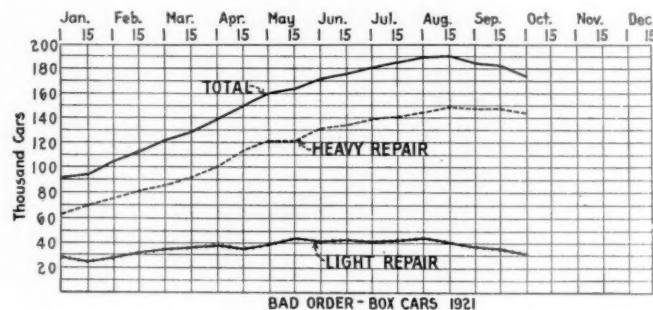
The heavy demand for refrigerators is general. Loading is particularly heavy in California, Washington, Oregon,



Idaho and Colorado with large increase in loading over previous records. For fruit and vegetables there was recorded a loading for the season up to October 1 of 261,210 cars, which is an increase of 28,843 cars over previous year for the same period. Recent weekly records of loading indicate a higher percentage of increase with prospects of 30 to 40 per cent increase during the next few weeks over the corresponding period of a year ago. To meet this situation rep-

resentatives of the railroads have been called together in two groups—one at Washington and one at Chicago, representing the Eastern, Southeastern and Southwestern railroads. These conferences have resulted in an immediate movement of 5,500 railroad refrigerator cars into the territory of greatest demand.

There is a most unusual movement of potatoes coming out of the Northwest this season which up to the present is being handled in box cars. It will soon be necessary to provide protection against frost for this movement, which,



with the beginning of the citrus movement from California and Florida in the immediate future will make demands for refrigerator cars continuous.

The load per car for refrigerators is less than for any previous season. For the three months ended June 30 the average load per refrigerator car was 13.5 tons. This compares with 14.5 for the corresponding period in 1920 and with 15.7 tons per car when compared with what has been done heretofore, taking refrigerator loading as a whole. In the citrus movement the loading from Southern territory is considerably lower than that from the West. During the Fall months of 1920 the loading from the Florida section averaged 15.1 tons per car while the western loading of the same commodity was 17.8 tons per car. If the transportation requirements are to be met satisfactorily this factor of heavier loading of cars available must have attention on the part of shippers and receivers and their co-operation given to the best possible use of equipment.

Records recently compiled of loading of flour and mill stuffs at one of the largest milling centers indicate that the loading of flour for the month of August, 1921, averaged 29 tons per car, whereas during the same month in 1920 the loading was 35.7 tons per car. Mill stuffs loaded at the same terminal for the same period showed 23.9 tons per car as against 30.6 tons per car last year. This means that on

REVENUE FREIGHT LOADED AND RECEIVED FROM CONNECTIONS
WEEK ENDED OCTOBER 15, 1921

Districts:	Year	Grain and grain products	Live stock	Coal	Coke	Forest products	Ore	Merchandise L.C.L.	Miscellaneous	Total revenue freight loaded		Received from connections	
										This year 1921	Corresponding year 1920	This year 1921	Corresponding year 1920
Eastern	1921	8,932	3,332	48,327	1,923	4,437	1,166	61,715	84,487	214,319	229,025	229,025	229,025
	1920	6,406	3,156	60,830	3,931	8,024	10,238	48,991	105,390	246,966	233,721	259,100	255,860
Allegheny	1921	2,948	3,550	53,436	2,674	2,951	2,945	47,427	58,829	174,760	119,927	119,927	119,927
	1920	2,649	3,530	67,128	6,866	3,492	13,989	40,358	76,593	214,605	201,531	153,837	147,404
Pocahontas	1921	212	474	25,137	172	1,242	11	5,527	4,060	36,835	14,733	14,733	14,733
	1920	82	469	23,604	1,058	1,680	336	5,327	5,138	37,694	36,184	19,674	20,110
Southern	1921	3,547	2,289	26,415	456	16,986	489	40,087	41,268	131,537	73,932	73,932	73,932
	1920	2,953	2,522	29,059	1,566	18,579	3,350	36,519	40,790	135,338	132,953	76,250	76,912
Northwestern	1921	15,575	9,035	11,108	741	12,722	13,655	29,184	42,680	134,700	57,048	57,048	57,048
	1920	14,013	9,525	11,620	1,734	14,216	44,394	29,115	43,322	167,939	161,725	61,337	64,527
Central Western	1921	12,960	14,102	21,956	218	7,200	724	32,101	56,922	146,183	63,167	63,167	63,167
	1920	10,636	13,027	27,516	473	7,069	3,385	31,487	51,920	145,513	142,440	66,758	79,449
Southwestern	1921	4,198	3,428	5,127	148	7,479	799	16,500	30,021	67,700	51,546	51,546	51,546
	1920	4,071	2,827	6,914	150	7,252	737	17,895	30,638	70,484	63,524	50,738	50,683
Total, all roads	1921	48,372	36,210	191,506	6,332	53,017	19,789	232,541	318,267	906,034	609,378	609,378	609,378
	1920	40,810	35,056	226,671	15,778	60,312	76,429	209,692	353,791	1,018,539	972,078	687,694	694,945
Increase compared	1920	7,562	1,154	64,835	4,554	12,705	13,360	22,849	64,476	112,505	117,300	121,684	114,433
Decrease compared	1919	3,555	.....	35,165	9,446	7,295	56,640	84,262	35,524	.....	78,316	.....	.....
Increase compared	1919	.....	6,610	25,910	2,103	8,044	33,545	79,449	66,044	.....	85,567	.....	.....
Decrease compared	1919	.....	3,555	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
October 8	1921	53,964	34,073	180,339	6,054	49,459	25,702	233,445	312,684	895,740	1,011,666	992,171	701,083
October 1	1921	57,890	32,868	178,005	5,615	49,466	26,393	234,227	317,429	901,893	957,596	581,232	687,398
September 24	1921	53,046	32,933	171,474	4,946	48,702	30,333	232,312	300,757	874,503	1,008,109	569,626	693,881
September 17	1921	56,019	30,399	166,058	4,853	46,472	28,215	235,063	287,371	854,450	991,166	543,585	678,200

*Grain and total figures revised due to correction on D. L. & W. reports.

the basis of current loading of flour for every six cars dispatched there was one more car used than was necessary.

Reports for July, 1921, show an average loading per car for all commodities of 27.5 tons. The corresponding figure for the same month in 1920 was 29.5 tons per car. Assuming that there was a total of 3,363,000 cars loaded during the month of July, 1921, had the same tonnage per car been loaded this year as was loaded last year, there would have been 228,000 less cars loaded during the month,—one of the cures for car shortages.

Since Labor Day there has been a marked upward tendency in total coal loading. In the anthracite fields the production is remaining fairly constant with supply of equipment equal to the demands.

Advance figures indicate a continued reduction of surplus so that by or prior to November 1 the surplus of equipment of gondola and hopper cars will be exhausted. There are indications of sectional shortage, the total shortages as of October 1 being approximately 3,300 cars.

The total number box cars in bad order, October 1, was 175,551, of which 144,078 were awaiting heavy repairs. It will be noted that the turn in this condition came during the early part of August, since which there has been a reduction of total box cars awaiting repairs of approximately 15,000 and a reduction in the heavy repair cars of approximately 5,000. It may be assumed that 7 per cent of the total box cars owned would represent the number normally in bad order under present conditions. This equals approximately 73,000 cars. Excess over normal is therefore 102,500 cars.

There has been little change in the total number of bad order open top cars comparing August 15 and October 1. The increase has apparently been stopped and advance indications are there will be a downward tendency dating from October 1. The number of open top cars awaiting repair August 15, were 153,406 while on October 1 this figure stood at 152,768. Figures of bad order open top cars as divided between hoppers and gondolas are not available. It may be assumed that 7 per cent of the open cars owned would represent the number normally in bad order under present conditions. This equals approximately 68,500 cars. Excess over normal is therefore 84,000.

The freight car surplus showed a further reduction during the week ending October 15 to 121,944, of which 36,882 were box cars and 69,558 were coal cars. There were shortages amounting to 3,683 cars, of which 1,098 were refrigerator cars.

High Surtaxes Kill Sale of Equipment Trusts

WASHINGTON, D. C.

AN EXPLANATION of why the sales of the railroad equipment trust certificates taken by the Railroad Administration in payment for the standard equipment allocated to the railroads were suddenly stopped recently after the War Finance Corporation had disposed of some \$94,000,000 of them in two or three weeks, is afforded by a letter written by Eugene Meyer, Jr., managing director of the corporation, to Chairman Fordney of the House ways and means committee.

The proceeds of the sales increased the funds of the Railroad Administration available to make its settlements with the roads. Mr. Meyer says that upon the discussion in the Senate of an increase in the maximum surtaxes in the revenue bill from 32 per cent as provided in the House bill, to 50 per cent, which was forced upon the Senate leaders by the "agricultural bloc" all sales of these securities immediately ceased. They bear interest at the rate of 6 per cent and the higher the rate of surtax of the income tax law, the greater

is the inducement for large investors to put their funds into lower rated tax-exempt securities.

The letter recalled Mr. Meyer's testimony before Congressional committees in connection with the railroad funding bill, in which he stated the opinion that the funds used by the corporation in carrying out the provisions of the bill would be recovered through the sale of securities before June 30, 1922.

"I based that estimate on the ability to sell gradually the securities which we would probably take from the director general of railroads," Mr. Meyer said. "I based my confident expression of opinion, however, upon certain facts and conditions, as you will remember. The facts were:

"1. Improving gross and net earnings of the railroads, due to the improvement in business, and especially the improvement in the general business of the country that I expected would follow the passage of the bill itself, through the increased purchasing power of the railroads in connection with maintenance and repair work.

"2. The increasing ease in the money market and the prospect of an improved investment demand.

"Both of these conditions have been emphasized since I appeared before your committee.

"There was one other condition upon which my expectation with reference to the sale of securities was based, and that was the enactment into law of the recommendations of the Secretary of the Treasury with regard to the reduction of the upper brackets of the income taxes. This latter condition was also made clear in my testimony on the railroad funding bill before the interstate and foreign commerce committees of the Senate and the House.

"Following the adoption by the House of Representatives of the reduction of the maximum surtax to 32 per cent, I was able, acting informally by authority of the President and the director general of railroads, to arrange the sale in September of about \$100,000,000, par value, of the railroad equipment trust certificates held by the government, at exact cost to the United States government with accrued interest.

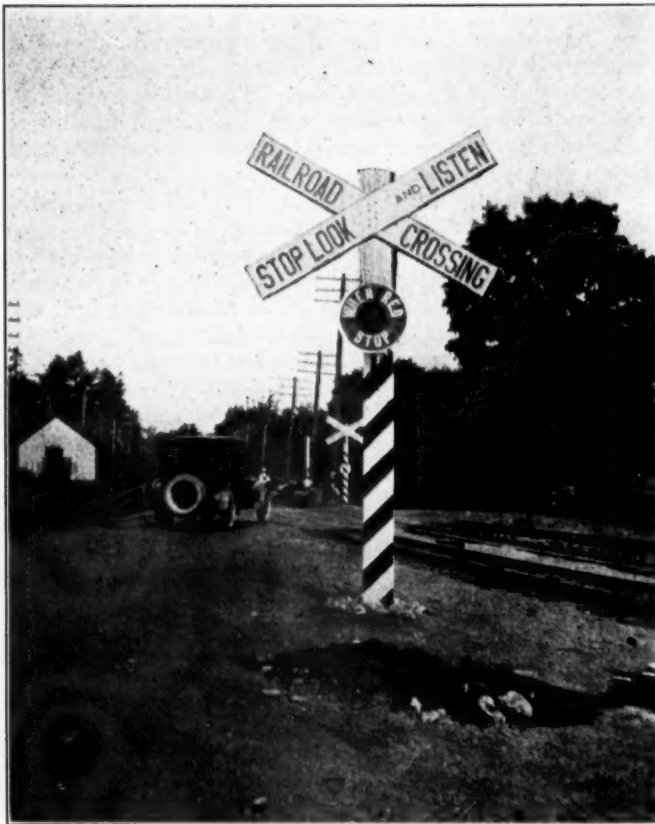
"Immediately upon the assembling of the Congress and the discussion of an increase in the surtax to a maximum of 50 per cent, all sales of these securities immediately ceased. It is fair to assume that the discussion of the increased surtaxes was intimately related to the termination of the market for railroad equipments. The sales did not cease because of the exhaustion of the supply of desirable securities of the good roads, as the government now holds \$54,000,000 par value of the equipment trust certificates of the same roads of which a considerable part already has been actually disposed of.

"The tax situation is intimately related to the marketing of railroad and industrial securities on a reasonable basis, and in view of my previous statement, I am writing you this letter because I am not willing to be responsible for any plans based upon the expectation of marketing railroad securities on a 6 per cent basis, if the surtaxes are to be raised above the House schedule."

THE INTERSTATE COMMERCE COMMISSION is receiving many applications from railroads and individual officers and directors for authority to retain the position of officer and director of more than one company after December 31. Among the latest applications received are the following: From M. L. Bell for authority to retain the office of director, vice-president and general counsel of the Chicago, Rock Island & Pacific, while also holding office with various subsidiary companies and the Minneapolis & St. Louis; from the Chicago & Western Indiana for authority for its officers to hold similar positions on the Belt Railway of Chicago; from C. A. Peabody for authority to retain the office of director of the Illinois Central, the Union Pacific, Delaware & Hudson, the Baltimore & Ohio, the Pittsburgh, Fort Wayne & Chicago and various subsidiaries.

Morrison's Flashlight Signal for Highway Crossings

THE NEW YORK, NEW HAVEN & HARTFORD has recently put up at a number of highway grade crossings in Massachusetts, Rhode Island and Connecticut a new style of light signal (with no bell) to give indications both day and night. The new signal is attached to the post of the ordinary crossing sign and the light is controlled electrically by approaching trains, by means of track circuits actuated by the moving trains, as in the ordinary audible crossing signal. The light is a standard Edison, incandescent. The red roundel, eight inches in diameter, is surrounded by an illuminated disk which, to the wayfarer, says "WHEN RED, STOP." The letters (white) stand out prominently, especially at night. The light is of the same general design as that used in the automatic block signals on the New York division of the road, which were described in the *Railway Age* of April 27, 1917. The reflector is 24 in. in diameter and the drum carrying the lens is 8 in. in diameter. The Edison socket of the lamp is held in place by an adjusting device so arranged that, within certain limits, it can be centered at any point in both



Red Light Crossing Signals at Andover, Connecticut

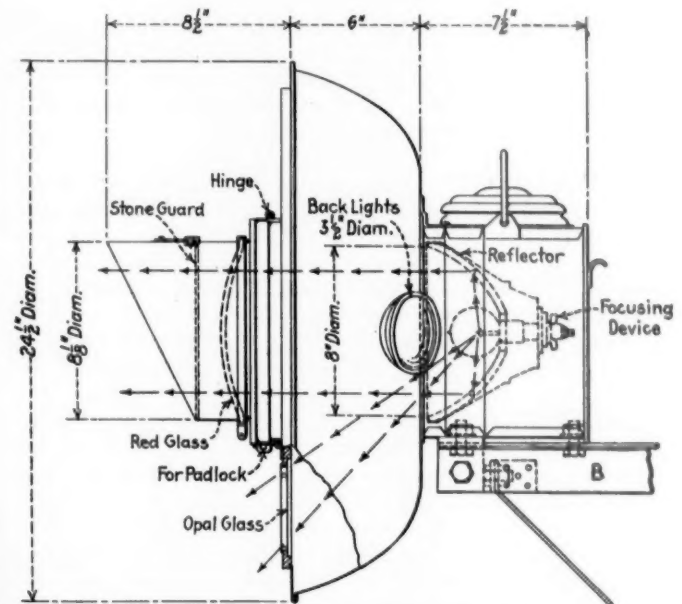
the horizontal and the vertical planes. The parabolic reflector is of mirrored glass, and it is permanently fastened to the lantern.

The electric light bulb is a G-18½, 40-watt, 8-volt. It is a 1000-hour lamp designed especially for the signals of the New Haven road. The filament is a horizontal spiral with a focal distance of 15/16 in. with an allowance for variation of not more than 3/32 in. The lamp has a standard Edison medium screw base. The filament is of such shape that it gives a spread of 12 deg. of high intensity light, that is, six degrees on either side of the axis of the beam. The lamp is rated at 1,000 hour at normal voltage, but is operated at about 15 per cent below normal, thus increasing the life of the lamp

100 to 200 per cent. It is calculated that, thus operated, the bulbs will last at least a year; and by renewing the bulbs at regular periods, well within the time limit, a high factor of safety will be obtained.

Photometer readings indicate that when the lamp is properly focused in the reflector, the projected beam through the red roundel is about 6,000 c. p. at one degree from the axis of the beam.

The bracket, B, by which the lamp is fixed to the post, is fitted with set screws by which the lamp may be adjusted in both the horizontal and the vertical planes. A double slow-releasing relay, so designed that one member reacts upon the



Morrison's Red Light Day and Night Signal for Highway Crossings

other, automatically opens and closes the contacts for flashing the light. This relay is so adjusted that the time between the pick-up and release of one pair of magnets is different from that of the other; this provides the proper time element for the energizing and de-energizing of the lamp filament. The apparatus is adjusted to give 30 flashes a minute, which is believed to be the most suitable arrangement. The relay is so adjusted that in each cycle the lamp is alive 75 per cent of the time and 25 per cent of the time it is dark.

The circuit arrangement is such that practically all abnormal conditions will produce a constant red light, except failure of the track circuit, in which case a flashing red light will be displayed.

Energy is provided from an eight-volt storage battery having a capacity of 56 ampere hours, under intermittent service. The storage battery is slowly charged by floating across a primary battery. It is proposed to use the storage battery for all installations; but at certain points where commercial current is available the accumulator is charged direct from the commercial source rather than by the primary battery. As shown in the perspective illustration, a light signal is provided on each side of the railroad.

These signals have proved so satisfactory that the railroad has been allowed to install them, in some cases, in place of watchmen, resulting in a substantial saving in operating expenses.

These signals are in service at Titicut, Mass.; Norton, Mass.; Cranston, R. I.; Andover, Conn.; New Britain, Conn.; Hamden, Connecticut, and Derby, Connecticut. Three of them are now being put up at crossings in New York State.

General News Department

Mechanical Convention at Atlantic City

The Executive Committee of the Railway Supply Manufacturers' Association met at the Waldorf-Astoria Hotel, New York City, October 26, 1921. The situation was thoroughly discussed regarding the meeting and exhibits of the Association for 1922. The letter ballot as to the preference of all members indicated a three-to-one vote in favor of the meeting and exhibits. The letter ballot and reports from the various members of the committee, representing all parts of the United States, showed also that the members were decidedly in favor of going to Atlantic City for the meeting and exhibits. A formal vote was taken and it was unanimously decided to hold the 1922 meeting and exhibits in Atlantic City.

The General Committee of Division 5—Mechanical, American Railway Association, held a meeting in New York City on the afternoon of October 6, and decided unanimously to hold its annual convention at Atlantic City, June 14 to 21, 1922. Division 3, American Railway Association (Purchases and Stores) will be invited to hold its annual meeting at the same time and place.

The American Railway Chief Surgeons' Association held its semi-annual meeting at the Hotel Sherman, Chicago, on October 17. The principal topic under discussion was the proposed vaccination of all employees against smallpox and typhoid fever.

A sleeping car line 785 miles in length is now in operation in Great Britain. It extends from Aberdeen, Scotland, to Penzance, in the southwest part of England, not far from Land's End. The route is over the Caledonian, the North British, the North Eastern, and the Great Central to Banbury, and thence by the Great Western.

Meals at One Dollar on the Pennsylvania

Meals at one dollar, a luncheon or a dinner, can now be had on the dining cars of the Pennsylvania Railroad, special combination lunches and dinners being served at this price, on all cars throughout the System. This convenience is in addition to the usual a la carte features. During a brief experimental period about thirty different combinations have been tried. Others are being added, and changes are to be made frequently, in order to afford variety of choice as well as to determine those which are most popular. Each special combination consists of either meat or fish, two vegetables, rolls and coffee, tea or milk.

Conference on Railroad Tie Specifications

A conference on the proposed unification of specifications for railroad cross ties and switch ties, called by the American Engineering Standards Committee, was held at Washington on October 25 at the office of the United States Forest Service. The conference decided unanimously that such unification should be undertaken, but as to the question as to the scope of the work it was thought best to confine the work to unifying the existing specifications as to size and quality and not to consider the matter of treating ties. The Forest Service and the American Railway Engineering Association were appointed as sponsors for the organization of the work and committees will be formed including representatives of the lumber industry and other interests. John Foley, forester of the Pennsylvania, represented the American Railway En-

gineering Association at the conference. The National Association of Railroad Tie Producers was represented by W. C. Nixon. Representatives were also present of the National Hardwood Lumber Association, the National Lumber Manufacturers' Association, the West Coast Forest Products Bureau, the American Society for Testing Materials, the American Electric Railway Association, the Forest Service and the Bureau of Standards.

Machine Tool Builders' Convention

The twentieth annual convention of the National Machine Tool Builders' Association was held October 18, 19 and 20 at the Hotel Astor, New York. A considerable proportion of the membership was in attendance at the opening session, when H. Tuechter, president of the association, read his opening address. He discussed the possibilities in the way of standardization of tools, improved standard methods of cost accounting and the value of the statistical service being developed by E. F. Du Brul, general manager of the association. It was proposed to make this statistical service a business barometer to guide the members of the association. The president's address was followed in the afternoon by addresses by Charles L. Underhill, Congressman from Massachusetts, on "How Present Political Policies Affect Business"; Professor Jordan, of New York University, on "Business Cycles," and C. L. Cameron and E. F. Du Brul, on "What Things Should Machine Tool Builders Do and What Should They Avoid at Various Stages of the Cycle?" The second day of the convention was devoted to committee meetings, and the third to addresses of general interest followed by an executive session. Officers of the association for the year 1921 were re-elected for 1922, the only change being in the election of Howard W. Dunbar, Norton Company, Worcester, Mass., as secretary.

Valuation Bureau Reorganization

The Bureau of Valuation of the Interstate Commerce Commission is undergoing an extensive reorganization affecting the engineering, accounting and land sections, which involves some reduction of the force, as the field work has been practically completed, and the principal remaining work consists of compilation and the preparation of tentative reports. The work is now being centralized in Washington and the district offices are to be closed and the engineering board abolished. In place of the board, H. M. Jones, who was district engineer at Chattanooga, has been appointed supervising engineer at Washington and will have a staff similar to the staffs maintained by the district engineers. The Chicago office is to be maintained until November 30, but the Kansas City and San Francisco offices were closed on October 26 and the Chattanooga office has already been closed. Approximately 300 employees of the district offices will be moved to Washington, but many of them, particularly from the more distant offices, did not care to move and in some instances this will mean that others will be taken on at Washington to fill their places. A considerable number of men will remain in the field closing up their work until the end of the year. C. C. Witt, district engineer at Kansas City, has been appointed assistant supervising engineer at Washington. R. A. Thompson and Edwin F. Wendt, district engineers at San Francisco and Washington, have resigned, effective on October 30, and the resignation of W. D. Pence, district engineer at Chicago, becomes effective on November 30. Similarly the land section is to be centralized at Washington and the service of the valuation attorneys is to be terminated on November 15.

Operating Statistics of Large Steam Roads—Selected Items for the Month of August, 1921,

Region, road and year		Average miles of road operated	Train-miles	Locomotive-miles		Car-miles		Ton-miles (thousands)		Average number of locomotives on line daily							
				Principal and helper	Light	Loaded (thousands)	Empty (thousands)	Per cent loaded	Gross. Excluding locomotive and tender	Net. Revenue and non-revenue	Serviceable	Un-serv-iceable	Per cent unserv-iceable	Stored			
New England Region:																	
Boston & Albany.....		1921	394	237,289	256,462	29,707	4,479	2,329	65.8	50.0	232,576	90,975	123	29	19.1	...	
		1920	394	342,870	365,715	36,775	6,124	2,771	68.8	50.0	347,394	164,768	135	30	18.2	...	
Boston & Maine.....		1921	2,469	509,399	564,573	46,610	11,094	4,627	70.6	50.5	561,444	230,743	325	132	28.9	62	
		1920	2,469	748,603	837,170	86,090	15,442	6,014	72.0	50.8	848,382	390,619	371	96	20.5	1	
N. Y., N. H. & H.....		1921	1,960	452,517	487,934	30,355	10,498	5,192	66.9	49.2	537,300	222,152	309	79	20.3	45	
		1920	1,938	549,258	577,632	38,069	11,970	4,278	73.7	49.1	624,611	295,436	318	80	20.1	...	
Great Lakes Region:																	
Delaware & Hudson.....		1921	880	339,246	445,083	33,260	8,556	5,196	62.2	50.4	561,387	276,773	276	35	11.3	114	
		1920	881	474,557	677,898	45,849	12,388	6,257	66.1	49.1	860,783	456,243	263	37	12.4	8	
Del., Lack. & Western.....		1921	997	511,787	625,962	115,829	15,943	6,873	69.9	50.2	875,637	416,323	303	56	15.5	46	
		1920	997	602,361	731,373	134,938	18,523	7,763	70.5	50.5	1,079,114	547,967	306	74	19.5	...	
Erie (inc. Chic. & Erie).....		1921	2,259	951,327	1,066,507	48,796	31,682	15,208	67.6	50.5	1,867,603	859,152	550	177	24.3	53	
		1920	2,259	1,145,156	1,303,498	50,243	38,707	16,718	69.8	50.8	2,296,856	1,126,003	578	109	15.9	5	
Lehigh Valley.....		1921	1,431	559,876	614,036	59,717	15,883	9,365	62.9	52.9	964,033	431,766	439	107	19.6	129	
		1920	1,429	692,753	780,257	75,312	21,447	9,127	70.1	48.7	1,328,081	705,534	410	184	31.0	80	
Michigan Central.....		1921	1,829	449,153	457,183	18,260	13,366	7,042	66.3	46.3	742,532	298,867	328	84	20.4	107	
		1920	1,826	612,979	639,760	21,475	20,506	7,644	72.8	48.3	1,096,847	522,360	339	75	18.1	...	
New York Central.....		1921	5,655	1,677,716	1,856,719	133,471	59,097	35,692	62.3	47.6	3,435,800	1,455,922	977	622	38.9	248	
		1920	5,646	2,154,718	2,509,751	196,247	84,032	42,437	66.4	49.9	5,053,436	2,498,332	(1)	(1)	(1)	(1)	
N. Y., Chic. & St. L.....		1921	572	320,416	320,989	909	9,969	4,630	68.3	51.3	508,026	200,011	119	49	28.9	5	
		1920	573	442,159	449,434	938	13,564	3,894	77.7	56.5	694,440	335,864	115	49	29.8	1	
Pere Marquette.....		1921	2,196	345,847	351,558	6,881	8,689	4,066	68.1	48.6	475,349	206,794	163	45	21.5	18	
		1920	2,208	373,969	387,523	5,931	10,089	2,681	79.0	51.6	524,692	274,784	158	39	19.7	...	
Pitts. & Lake Erie.....		1921	225	67,273	70,156	599	2,374	1,344	63.9	48.4	166,136	93,149	59	27	31.5	22	
		1920	225	155,041	158,575	1,891	6,132	2,275	72.9	48.9	426,678	262,143	65	13	17.0	1	
Wabash.....		1921	2,418	595,359	627,690	9,632	16,308	7,490	68.5	48.2	874,616	372,818	276	71	20.5	39	
		1920	2,418	653,517	669,184	8,762	19,849	5,513	78.3	49.0	1,024,809	502,607	265	69	20.7	14	
Ohio-Indiana-Allegheny Region:																	
Baltimore & Ohio.....		1921	5,185	1,671,430	1,772,764	137,693	40,623	25,729	61.2	48.6	2,690,838	1,322,018	1,002	393	28.2	192	
		1920	5,154	2,194,745	2,450,990	137,081	59,741	31,902	65.2	49.4	4,039,162	2,153,618	1,082	227	17.3	9	
Central of N. J.....		1921	679	264,944	297,263	40,173	6,237	3,733	62.6	49.3	390,283	192,294	206	56	21.3	14	
		1920	679	360,193	391,220	38,226	8,039	4,276	65.3	51.9	515,978	268,996	219	50	18.6	...	
Chicago & Eastern Ill.....		1921	1,131	246,902	248,431	3,895	5,818	3,527	62.2	51.6	355,485	177,339	127	49	27.5	2	
		1920	1,131	316,805	329,124	5,574	8,008	3,791	67.9	53.2	483,110	252,082	137	52	27.5	2	
C., C., C. & St. L.....		1921	2,382	627,199	653,303	2,912	17,213	11,295	60.4	48.6	1,067,098	468,446	299	143	32.4	32	
		1920	2,393	755,389	786,263	738	21,999	10,758	67.2	52.9	1,332,925	640,091	304	75	19.8	...	
Elgin, Joliet & Eastern.....		1921	836	87,348	94,207	4,710	2,714	1,301	67.6	52.1	197,442	106,104	97	11	10.0	43	
		1920	835	162,230	184,219	13,030	5,343	1,961	73.2	53.9	361,512	199,617	94	13	12.6	...	
Long Island.....		1921	395	46,290	53,044	8,585	588	401	59.5	49.9	32,861	12,833	35	10	22.6	1	
		1920	395	43,413	56,416	12,638	520	289	64.3	51.2	27,025	11,319	39	11	22.3	...	
Pennsylvania System.....		1921	10,877	3,954,882	4,278,363	300,264	100,933	57,353	63.8	48.8	6,776,305	3,376,523	2,615	854	24.6	843	
		1920	10,838	5,349,632	5,930,715	440,219	135,669	75,213	64.3	47.9	9,157,378	4,928,190	2,166	849	28.2	5	
Phila. & Reading.....		1921	1,119	503,999	568,105	70,229	12,390	7,130	63.5	50.3	835,302	432,337	367	85	18.9	168	
		1920	1,119	678,152	794,177	114,371	17,872	7,942	69.2	51.6	1,200,244	693,052	299	81	21.3	1	
Pocahontas Region:																	
Chesapeake & Ohio.....		1921	2,548	641,697	694,937	20,147	18,473	13,211	58.3	48.6	1,395,262	749,688	456	102	18.3	126	
		1920	2,520	909,620	1,004,891	28,179	28,167	17,731	61.4	50.9	2,146,624	1,191,590	416	112	21.1	4	
Norfolk & Western.....		1921	2,221	665,948	800,708	29,845	18,164	12,041	60.1	49.6	1,373,981	744,037	614	88	12.5	216	
		1920	2,190	866,697	1,111,145	51,608	26,493	14,674	64.4	49.0	1,959,756	1,104,221	505	174	25.6	62	
Southern Region:																	
Atlantic Coast Line.....		1921	4,887	474,410	478,123	6,809	9,953	5,295	65.3	52.6	508,139	197,762	295	113	27.6	68	
		1920	4,890	601,053	604,338	8,667	13,200	5,989	68.8	49.5	694,675	308,977	289	149	34.0	1	
Central of Georgia.....		1921	1,908	227,007	229,216	2,022	4,427	2,242	66.4	49.0	229,958	98,910	110	25	18.8	17	
		1920	1,913	259,948	262,639	5,231	5,312	1,896	73.7	48.4	274,367	129,280	112	18	13.7	...	
I. C. (inc. Y. & M. V.).....		1921	6,151	1,549,470	1,555,055	30,251	40,852	24,141	62.9	50.5	2,579,683	1,147,793	712	95	11.8	16	
		1920	6,151	2,010,413	2,019,941	41,853	52,902	22,954	69.7	49.9	3,253,576	1,606,406	690	103	13.0	12	
Louisville & Nashville.....		1921	5,020	1,461,786	1,556,544	55,523	25,033	16,956	59.6	49.5	1,525,062	766,006	551	103	15.8	37	
		1920	5,024	1,673,333	1,836,716	65,758	30,528	14,873	67.2	49.6	1,871,885	946,519	540	112	17.2	...	
Seaboard Air Line.....		1921	3,537	351,147	360,355	6,708	7,156	2,888	71.2	52.7	355,145	144,844	166	90	35.2	6	
		1920	3,537	442,766	451,037	10,022	10,087	3,651	73.4	50.7	525,507	242,154	175	97	35.6	1	
Southern Ry.....		1921	6,942	1,181,316	1,202,071	24,863	24,955	12,734	66.2	48.7	1,332,754	553,821	879	239	21.4	65	
		1920	6,942	1,507,552	1,540,787	37,802	33,426	11,674	74.1	50.4	1,739,792	800,546	896	205	18.6	2	
Northwestern Region:																	
C. & N. W.....		1921	8,371	1,631,875	1,680,576	22,430	34,517	21,536	61.6	48.9	2,034,514	787,534	813	262	24.4	62	
		1920	8,323	1,799,323	1,841,725	25,544											

Compared with August, 1920, for Roads with Annual Operating Revenues Above \$25,000,000

Region, road and year	Average number of freight cars on line daily				Gross tons per train, excluding locomotive and tender	Net tons per train	Net tons per car	Net ton miles per car-day	Car-miles per car-day	Net ton miles per mile of road per day	Pounds of coal per ton-miles, including locomotive and tender			Passenger service					
	Home	Foreign	Total	Per cent un-service-able							Stored	Net tons per train	Net tons per car	Net ton miles per car-day	Car-miles per car-day	Net ton miles per mile of road per day	1,000 gross ton-miles, including locomotive and tender	Train-miles	Passenger train car-miles
New England Region:																			
Boston & Albany.....1921	3,475	3,672	7,147	7.9	845	980	383	20.3	411	30.7	7,450	194	306,350	2,050,105					
.....1920	634	8,000	8,634	3.9	....	1,013	481	26.9	616	33.2	13,492	204	325,584	2,081,214				
Boston & Maine.....1921	18,246	12,046	30,292	21.7	2,195	1,102	453	20.8	246	16.7	3,015	145	962,179	5,419,381					
.....1920	7,725	27,152	34,877	9.0	....	1,133	522	25.3	361	19.8	5,104	....	989,493	5,941,952			
N. Y., N. H. & H.....1921	25,719	13,059	38,778	25.8	1,395	1,187	491	21.2	185	13.1	3,657	159	1,116,929	7,191,421					
.....1920	8,590	34,130	42,720	8.7	....	1,137	538	24.7	223	12.3	4,917	183	1,237,385	7,968,337				
Great Lakes Region:																			
Delaware & Hudson.....1921	11,007	4,907	15,914	14.6	817	1,655	816	32.3	561	27.9	10,141	180	226,428	1,306,458					
.....1920	4,961	16,409	21,370	5.2	....	1,814	961	36.8	689	28.1	16,713	171	236,603	1,313,201				
Del., Lack. & Western.....1921	17,921	7,788	25,709	15.7	44	1,711	813	26.1	522	28.6	13,474	162	516,284	3,888,592					
.....1920	4,358	21,018	25,376	5.5	....	1,791	910	29.6	697	33.4	17,734	....	518,098	3,920,386			
Erie (inc. Chic. & Erie).....1921	39,032	15,265	54,297	21.9	8,884	1,963	903	27.1	510	27.9	12,270	134	686,855	5,274,842					
.....1920	7,472	54,703	62,175	6.8	....	2,006	983	29.1	584	28.8	16,081	145	735,099	5,528,098				
Lehigh Valley.....1921	31,731	7,887	39,618	9.3	2,711	1,722	771	27.2	352	20.6	9,736	159	390,892	3,104,050					
.....1920	8,532	29,306	37,838	8.3	....	1,917	1,018	32.9	601	26.1	15,925	169	389,625	3,162,284				
Michigan Central.....1921	19,373	13,448	32,821	21.7	239	1,653	665	21.6	294	20.5	5,270	119	623,114	5,773,786					
.....1920	4,586	33,762	38,348	7.6	....	1,789	852	25.5	439	23.7	9,230	....	668,402	6,090,290			
New York Central.....1921	88,935	46,016	134,951	18.5	16,987	2,048	868	34.6	348	22.7	8,305	116	2,455,237	20,349,123					
.....1920	30,265	131,169	161,434	7.3	....	2,345	1,166	29.7	499	25.3	14,273	....	2,702,385	21,624,541			
N. Y., Chic. & St. L.....1921	4,997	3,978	8,975	21.3	673	1,586	624	20.1	719	52.5	11,277	96	88,893	601,248					
.....1920	1,443	10,844	12,287	7.1	....	1,571	760	24.6	882	45.8	18,923	....	87,483	575,026			
Pere Marquette.....1921	11,394	11,075	22,469	18.2	500	1,374	598	23.8	297	18.3	3,038	124	343,326	1,827,982					
.....1920	4,089	18,878	22,967	6.8	....	1,403	735	27.2	386	17.9	4,014	150	338,127	1,945,753				
Pitts. & Lake Erie.....1921	19,995	7,312	27,307	36.2	1,749	2,470	1,385	39.2	110	4.4	13,377	75	110,661	616,351					
.....1920	3,354	26,664	30,018	12.6	....	2,752	1,691	42.8	282	9.0	37,657	68	115,933	621,974				
Wabash.....1921	11,992	11,261	23,253	11.6	644	1,469	626	22.9	517	33.4	4,974	148	532,903	2,985,568					
.....1920	5,176	24,456	29,632	7.8	....	1,568	769	25.3	547	27.6	6,706	140	574,597	3,131,901				
Ohio-Indiana-Allegheny Region:																			
Baltimore & Ohio.....1921	69,973	29,422	99,395	10.6	3,926	1,610	791	32.5	429	21.5	8,225	176	1,410,158	9,171,496					
.....1920	24,524	89,940	114,464	6.5	....	1,840	981	36.0	607	25.8	13,480	....	1,386,301	8,598,412			
Central of N. J.....1921	19,993	8,345	28,338	20.4	4,896	1,473	726	30.8	219	11.3	9,142	181	403,970	2,050,825					
.....1920	5,259	20,104	25,363	10.7	....	1,433	747	33.5	342	15.7	12,785	....	399,458	1,798,429			
Chicago & Eastern Ill.....1921	14,330	3,230	17,560	13.3	846	1,440	718	30.5	326	17.2	5,058	154	223,873	1,442,963					
.....1920	5,180	11,638	16,818	12.2	....	1,525	796	31.5	483	22.6	7,190	....	240,300	1,515,375			
C., C., C. & St. L.....1921	17,651	15,034	32,685	13.2	262	1,701	747	27.2	462	28.1	6,343	127	734,266	4,355,661					
.....1920	4,011	32,719	36,730	8.4	....	1,765	847	29.1	562	28.8	8,628	....	786,163	4,911,921			
Elgin, Joliet & Eastern.....1921	9,726	3,988	13,714	8.1	1,915	2,260	1,215	39.1	250	9.4	4,094	116	(*)	(*)					
.....1920	8,484	7,285	15,769	7.5	....	2,228	1,230	37.4	408	14.9	7,708	....	(*)	(*)				
Long Island.....1921	2,150	2,925	5,075	4.0	193	710	277	21.8	82	6.3	1,049	312	227,514	1,378,696					
.....1920	600	5,337	5,937	4.0	....	623	261	21.8	62	4.4	925	....	226,878	1,414,109			
Pennsylvania System.....1921	219,759	64,071	283,830	14.3	57,670	1,713	854	33.5	384	18.0	10,013	133	5,401,592	35,886,764					
.....1920	96,589	212,872	309,461	4.4	....	1,712	921	36.3	514	22.0	14,668	....	5,671,451	38,318,962			
Phila. & Reading.....1921	27,653	10,362	38,015	7.1	8,778	1,657	858	34.9	367	16.6	12,459	172	542,724	2,492,139					
.....1920	7,239	39,062	46,301	4.0	....	1,770	1,022	38.8	483	18.0	19,975	....	538,658	2,547,534			
Pocahontas Region:																			
Chesapeake & Ohio.....1921	40,496	9,764	50,260	9.3	3,100	2,174	1,168	40.6	481	20.3	9,490	126	453,512	2,551,089					
.....1920	13,225	27,775	41,000	9.7	....	2,360	1,310	42.3	938	36.1	15,253	....	447,519	2,577,594			
Norfolk & Western.....1921	36,635	5,272	41,907	9.6	4,868	2,063	1,117	41.0	573	23.2	10,807	165	418,427	2,717,032					
.....1920	13,563	22,194	35,757	6.8	....	2,261	1,274	41.7	996	37.1	16,266	....	419,300	2,890,450			
Southern Region:																			
Atlantic Coast Line.....1921	21,222	5,792	27,014	24.2	....	1,071	417	19.9	236	18.2	1,305	135	708,278	4,110,252				
.....1920	5,995	19,239	25,234	11.2	....	1,156	514	23.4	395	24.5	2,038	....	743,595	4,536,970			
Central of Georgia.....1921	4,677	3,313	7,990	14.4	....	1,013	436	22.3	399	26.9	1,672	147	320,502	1,521,986				
.....1920	1,284	6,489	7,773	4.3	....	1,055	497	24.3	537	29.9	2,180	....	311,905	1,589,111			
I. C. (inc. Y. & M. V.).....1921	44,346	19,336	63,682	12.8	3,858	1,665	741	28.1	581	32.9	6,019	132	1,442,874	8,200,023					
.....1920	13,366	44,731	58,097	4.8	....	1,618	799	30.4	892	42.1	8,424	....	1,411,864	8,479,344			
Louisville & Nashville.....1921	39,859	14,773	54,632	29.3	90	1,112	524	30.6	452	24.8	4,923	159	943,548	5,469,554					
.....1920	15,707	32,873	48,580	10.4	77	1,119	566	31.0	629	30.1	6,078	....	907,773	5,588,742				
Seaboard Air Line.....1921	11,628	6,162	17,790	32.2	....	1,011	413	20.2	263	18.2	1,321	186	563,749	3,166,312				
.....1920	3,941	14,834	18,775	8.6	....	1,187	547	24.0	416	23.6	2,208	173	572,976	3,003,947				
Southern Ry.....1921	39,746	17,846	57,592	13.5	2,208	1,128	469	22.2	310	21.1	2,574	197	1,329,184	7,999,819					
.....1920	15,203	42,330	57,533	3.7	....	1,154	531	23.9	449	25.3	3,720	....	1,509,864	9,520,561			
Northwestern Region:																			
C. & N. W.....1921	49,102	26,241	75,343	10.0	6,679	1,247	483	22.8	337	24.0	3,035	161	1,675,159	10,873,303					
.....1920	27,369	54,874	82,243	7.5	....	1,294	596	26.5	421	24.2	4,158	....	1,729,251	11,301,929			
C., M. & St. P.....1921	49,742	26,724	76,466	18.8	3,261	1,368	624	25.5	419	24.6	2,913	145	1,545,941	9,779,283					
.....1920	19,928	50,635	70,563	8.1	....	1,432	647	24.9	537	32.9	3,566	....	1,406,558	9,923,236			
C., St. P., M. & O.....1921	4,378	11,504	15,882	15.7	2,516	1,025	451	24.1	317	19.1	2,914	152	324,986	1,867,450					
.....1920	2,304	10,589	12,893	8.9	....	1,045	470	24.0	433	25.1	3,231	....	320,141	1,989,564			
Great Northern.....1921	46,796	6,200	52,996	14.2	....	1,665	797	28.8	404	21.8	2,685	142	1,008,463	6,331,177				
.....1920	23,650	25,300	48,950	8.5</														

International Commerce Body to Meet at Rome

The second annual meeting of the International Chamber will be held in Rome, Italy, beginning September 18, 1922. At the first annual meeting held last June in London more than 200 American business men, representing virtually every industry in the United States, attended. Among the subjects which are to be studied by international committees are: Export credits, foreign exchange, reciprocal treatment of foreign banks, bills of exchange, economy of fuel, international bureau of statistics, international commercial arbitration, international protection of industrial prosperity, unification of tariff nomenclature, reciprocal treatment of commercial travelers, reform of the calendar, through freight trains on great international traffic routes, uniformity of ships' tonnage measurement, combined rail and ship bill of lading, uniform ocean bills of lading, uniform interpretation of meaning of trade terms, and uniform passport regulations.

American Railway Association

The regular meeting of the American Railway Association will be held at The Waldorf-Astoria, New York City, on Wednesday, November 16. Reports of divisions of the association are expected to be presented as follows:

Division I.—Operating; Freight Station Section; Medical and Surgical Section; Protective Section; Safety Section; Telegraph and Telephone Section.

Division II.—Transportation.

Division III.—Traffic.

Division IV.—Engineering; Construction and Maintenance Section; Electrical Section; Signal Section.

Division V.—Mechanical; Equipment Painting Section.

Division VI.—Purchases and Stores.

Division VII.—Freight Claims; Car Service Division; Joint Committee on Fuel Conservation; Joint Committee on Automatic Train Control; Conference Committee on Grain.

Copies of the reports will be forwarded to members in advance of the meeting.

Traffic News

The New England Traffic League, at a meeting in Boston last week voted approval of the action of the Boston & Maine in reducing freight rates to meet auto truck competition.

J. L. Neely, for the past eight years assistant traffic manager of the American Sheet & Tin Plate Company, has been promoted to traffic manager succeeding the late Andrew G. Young. Mr. Neely has been in the traffic department of the company for the past 20 years.

The Chicago Shippers' Conference Association will hold its annual meeting at the Hotel La Salle, Chicago, on November 1. Numerous traffic problems will be brought up, and the annual election of officers will be held. The chairman of the convention committee is R. J. Wallace, traffic manager of the Jaques Manufacturing Company.

The Pennsylvania has announced the restoration of its winter Florida passenger train, the "Southland," between Chicago and Jacksonville, Fla. It will make its first trip from Chicago at 8:30 p. m. on November 14. This train will be operated daily over the Pennsylvania to Cincinnati, Ohio; from there to Atlanta, Ga., over the Louisville & Nashville, from Atlanta to Albany, Ga., over the Central of Georgia, and from Albany to Jacksonville, on the Atlantic Coast Line.

Grain for export, shipped east from Buffalo, N. Y., by rail amounted, in one day last week, to 2,000,000 bushels, the largest total yet recorded this year and about double a normal day's movement. It is estimated that about 60 per cent of this grain goes to Philadelphia. The chief reason for this heavy movement is believed to be the threat of a strike by the brotherhoods. It is estimated that there are approximately 15,000,000 bushels of grain now in elevators at Buffalo.

The Interstate Commerce Commission has issued sixth section permission orders authorizing the railroads to put into effect on one day's notice special tariffs which will give practically free transportation for Marshal Foch and other representatives of foreign governments for their trips by special train to Kansas City for the convention of the American Legion. The rate provided for was \$1 for the train for each stage of the journey between New York and Washington, and between Washington or New York and Chicago and between Chicago and Kansas City.

Coal Production

The production of soft coal increased slightly during the week ended October 15, according to the weekly bulletin of the Geological Survey. The total output is estimated at 9,696,000 tons, an increase of 573 tons over the week preceding.

Coal Association Asks Rate Reduction

The American Wholesale Coal Association has filed a petition with the Interstate Commerce Commission requesting it to institute an investigation into the reasonableness and propriety of the general level of interstate rates on coal and coke throughout the United States, and also into the reasonableness and propriety of the charges for reconsignment, diversion and detention of coal cars. The petition says that transportation costs cannot continue to be unaffected by conditions which affect every other item of cost and that railroads which depend upon the nation's industries for their revenues cannot continue to exact charges on a basis which prevents or tends to prevent industries from returning to normal conditions. A reduction in the rates on coal, it says, would reduce costs in nearly every line of industry and would stimulate and encourage industry to a larger extent than would a reduction in rates on any other commodity. The petitioner does not desire investigation of individual rates or relationships, but expresses the conviction that the



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On the Road to Normalcy

commission should work toward a restoration of the rates and relationships which existed in 1917. Reference is made to the investigations already instituted by the commission into the rates on livestock, grain and lumber. It is asked that the coal investigation be assigned for hearing at an early date and that it be expedited. The petition was filed by Wilbur La Roe, Jr., who has recently formed a partnership with former Chairman Clark of the Interstate Commerce Commission.

George H. Cushing, representing the Coal Association, has also filed a formal complaint with the commission asking it to suspend on one day's notice all charges with respect to the detention, diversion, reconsignment or other charges or penalties affecting the transportation and delivery of coal and coke in carload lots except the ordinary transportation charge, in order to encourage the shipment of coal to meet a possible railroad strike situation. The complaint says that if the shippers should ship to market in anticipation of needs that will become most urgent in the case of a strike, in excess of current demands, they would be charged with demurrage and reconsignment and other charges which would more than absorb their entire gross margin.

Traffic Statistics for July

Revenue traffic statistics compiled by the Interstate Commerce Commission for July, and for seven months of 1921, covering 167 Class I roads, show only 24,990,000,000 ton miles of revenue freight for the month as compared with 37,075,000,000 for July last year. The freight revenue for the month was \$313,441,273 as compared with \$356,072,338. The total of passenger miles was 3,637,499,000, as compared with 4,801,015,000, and the passenger revenue was \$108,652,164, as compared with \$122,969,456. For the seven months' period the ton miles were 170,806,000,000, as compared with 227,772,000,000, and the freight revenues were \$2,177,314,692 as compared with \$2,210,199,657. The average revenue per ton mile was 1.275 cents. The number of passengers carried one mile for the seven months were 22,019,876,000 as compared with 26,580,007,000 in 1920, and the passenger revenue \$683,341,005 as compared with \$688,900,560. The average journey was slightly less than last year and the average number of revenue passengers per car was 16.67 as compared with 19.84.

The commission has added to its report on revenue traffic statistics certain data regarding commutation traffic for July, 1921, which shows the following:

District and region	Commutation traffic			Miles per passenger per road		Revenue per passenger-mile	
	Revenue passengers carried (thousands)	Revenue passengers carried one mile (thousands)	Passenger revenue	Commutation	Other than commutation	Commutation	Other than commutation
Eastern District:							
New Eng. Region	4,559	72,425	\$723,323	15.89	27.56	0.999	3.426
Great Lakes Region	6,432	111,909	1,115,866	17.40	69.74	0.997	3.287
Ohio-Indiana-Allegheny Region..	11,893	202,169	2,018,124	17.00	34.98	0.998	3.166
Pocahontas Region..	18	304	3,946	16.79	45.95	1.298	3.320
Southern District (exclusive of Pocahontas Region).....	1,614	16,993	204,668	10.53	52.23	1.204	3.430
Western District:							
Northwest. Region	2,187	39,822	472,460	18.21	85.00	1.186	3.379
Cent. West. Region.	2,812	37,379	351,273	13.29	89.40	0.940	3.213
Southwest. Region	214	2,548	41,103	11.91	63.08	1.613	3.394
United States.....	29,729	483,549	4,930,763	16.27	51.74	1.020	3.289

THE EXECUTIVE COMMITTEE of the Railway Supply Manufacturers' Association met at the Waldorf-Astoria Hotel, New York City, October 26, 1921. The situation was thoroughly discussed regarding the meeting and exhibits of the Association for 1922. The letter ballot as to the preference of all members indicated a three-to-one vote in favor of the meeting and exhibits. The letter ballot and reports from the various members of the committee, representing all parts of the United States, showed also that the members were decidedly in favor of going to Atlantic City for the meeting and exhibits. A formal vote was taken and it was unanimously decided to hold the 1922 meeting and exhibits in Atlantic City, New Jersey.

Commission and Court News

Interstate Commerce Commission

The commission has suspended until February 22, the operation of certain schedules published by the Atlantic Coast Line which propose increased commodity rates on lumber from various points in the Carolinas to Newport News, Va.

The members of the Interstate Commerce Commission on October 22 presented their former chairman, Edgar E. Clark, with a silver tea service. Mr. Clark was called to the hearing room of the commission on some pretext and Chairman McChord made the presentation speech.

Personnel of Commissions

R. A. Thompson, in charge of the Pacific district of the Bureau of Valuation, Interstate Commerce Commission, has resigned, the district offices having nearly closed up their business. Mr. Thompson is going to Wichita Falls, Tex., where he will be chief engineer in charge of the construction of dams for the Wichita County Water Improvement District.

Court News

Hours of Service Act—Telegraph Operators

The Circuit Court of Appeals, First Circuit, holds that a telegraph operator, who was paid for about 12 hours' service out of 24-hour periods, but was in actual service only 5 or 6 hours, being released from time to time for periods of 1 to 2 hours by the train dispatcher, was not on duty for a longer period than 9 hours in violation of Section 2 of the Hours of Service Act.—United States v. New York, N. H. & H., 274 Fed. 321.

Concealed Damage Discovered After Three Months

The consignee of a shipment of plate glass accepted it as in good order and kept it crated for three months. When it was then uncrated it was found broken. In an action against the railroad the South Carolina Supreme Court holds that recovery could not be based on the presumption that the glass was broken when delivered and the further presumption that the terminal carrier caused the breakage, since this would be to mount a presumption upon a presumption. The plaintiff must first show that the glass, when delivered to him, was in a damaged condition.—Nimmer v. Northwestern (S. Car.), 107 S. E. 479.

Violation of New York Fencing Law

Not Negligence as to Child

The New York Court of Appeals holds that where a child strayed on a railroad track and was killed by a train, the fact that the railroad had not fenced the road according to New York Railroad Law, §52, requiring fences to keep out live stock, was no basis for any claim of negligence against the company, the absence of a fence being no breach of a statutory duty owing to the deceased. The court states that there seems to be no prior decision in New York State on the point. Elsewhere under somewhat similar statutes the results conflict. In Massachusetts, Maine, New Hampshire, Ohio, Illinois, Indiana, and Iowa, it is said that the object of the Legislature is solely to prevent the straying of cattle. The contrary, at least so far as children are concerned, is the rule in Wisconsin, Missouri, Minnesota, Nebraska, and Michigan. The Supreme Court of the United States does not seem to have had a similar statute before it for construction.—Di Caprio v. New York Central (N. Y.) 131 N. E. 746.

Railroads' Right to Abandon Road Operated at a Loss

The Minnesota Supreme Court holds that, unless a railroad company has contracted to keep its road in operation, it has the constitutional right to abandon it if the line can no longer be operated except at a loss; but apparently the Railroad and Warehouse Commission has no power to authorize an abandonment on this ground, since the statute limits its power to allow abandonment if it "will not result in substantial injury to the public."—*In re Duluth & N. M. (Minn.)*, 184 N. W. 186.

Driver of Truck Held Negligent at Crossing Though Motor Fails

The Pennsylvania Supreme Court holds that where the driver of a motor truck, without stopping, looking, or listening, drove on a crossing and was killed by a train, he was guilty of contributory negligence as a matter of law, even though the accident would not have happened had the engine of the motor truck not stopped, the tendency of such an engine to stall if driven at low speed being well known to all drivers. In undertaking to calculate his chances on crossing the track ahead of the train the deceased was held bound to foresee and take into consideration this additional danger.—*Fendale v. Hines (Pa.)* 114 Atl. 497.

Insufficient Evidence of Flooding by Filling in Trestle

In an action against a railroad for damages to growing crops caused by obstructing the flood waters of a stream by filling in a trestle, the testimony showed that there was an excessive rainfall and several extraordinary overflows, which flooded the entire valley of the stream, both above and below the railroad embankment. The Mississippi Supreme Court reversed a judgment for the plaintiff because there was no testimony to enable the jury to separate the damages attributable to the wrongful act of the railroad company from that caused by the excessive rains on the crops and the consequent flooding of the land independent of the trestle.—*Davis v. Hambrick (Miss.)* Co. 88, 511.

Not Liable for Derailment

Caused by Transverse Fissure

In an action for personal injuries resulting from the derailment of a passenger train between Rahway and Elizabeth, N. J., the undisputed evidence showed that it was due to the breaking of a rail, caused by an internal transverse fissure not discoverable by the naked eye, and that no other test than the actual breaking of the rail would have revealed the defect. The rail was made by a reputable manufacturer, and had been in use about five years, about one-third of the normal life of such a rail; and the track was inspected daily. The Circuit Court of Appeals for the Third Circuit holds that the railroad was not liable, and judgment for the defendant was affirmed.—*Holland v. Director General*, 273 Fed., 928.

Railroad Not Liable for Shortage in

Weight of Package Freight

The District Court for the Northern District of Georgia holds that under Section 20 of the Bills of Lading Act of 1916, where a railroad loads package freight (cotton in bales) it is required only to state the number of packages and such marks or description as will identify them. A further statement, in an order bill for baled cotton, of the weight of the shipment is voluntary and gratuitous, and where it is qualified by the words "subject to correction" does not render the railroad liable to the holder of the bill, under Section 22, for a shortage in weights, and the qualification is not forbidden by law. The court adds: "It is appreciated that since cotton is not bought and sold by the package, but by the pound, this conclusion militates greatly against the attainment of one of the aims of the Bills of Lading Act; but the liability cannot be extended beyond the plain words of the act."—*Leigh Ellis & Co. v. Payne*, 274 Fed. 443.

Foreign Railway News

South Manchuria to Buy Supplies Here

The South Manchuria Railway plans to spend approximately \$20,000,000 annually in the United States, during the next few years for railway equipment and supplies, according to the New York Evening Post, which ascribes the statement to Yozo Tamura, an officer of the company, who recently arrived from Japan.

Spain Finances Harbor and Railway Improvement

Important construction projects reported recently by the American embassy in Spain include the issue of government bonds to the value of \$1,100,000 to finance improvements at the port of Ceuta; also extension of credits to the Northern Railway and to the Madrid, Zaragoza & Alicante Railway for the purchase of railway material provided for in the royal decree of October 15, 1920.

Extent of Depression in Great Britain

The business depression in Great Britain, as shown by traffic statistics of the railways, is severe. In July of this year passenger traffic, as shown by total passengers carried (exclusive of season ticket holders), had fallen 32.8 per cent from the figure for July, 1920, to a total of 101,450,975. Freight traffic declined 36.5 per cent to 1,088,443,125 ton-miles. Average receipts per ton-mile were 2.074 pence (about 4 cents). The average car load was 5.12 long tons and the average train load 123.52 long tons, as compared with 5.45 and 133 for the same period in 1920.

Important Railway for State of Matto Grosso, Brazil

A third railway in the Brazilian state of Matto Grosso, which will undoubtedly have the greatest influence on the future development of this rich section of Brazil, has been initiated, according to Commerce Reports. The first railway connects the two navigable stretches of the Madeira river, while the other, a more extensive line, crosses the southern part of the state, connecting the Parana and Paraguay rivers. While both lines have been important in the development of Matto Grosso, the present line, if carried to a successful completion, will be much more important. The proposed line is to commence at the Agua Clara station on the Northwest of Brazil Railway and, with an extension of approximately 620 miles, will reach Cuyaba, after having passed by Bahu, Santa Rita do Araguaia, and the thriving village of Rondonopolis. The commission of engineers is now making the last definite studies of the proposed railway line.

According to the plans, this railway should form the trunk line of a system of future railways along the margins of the Madeira river and other large tributaries of the Amazon.

Argentine Railway Dividends

Compared with last year's distribution the dividends recommended by three leading Argentine railways are disappointing, though they are in accordance with expectations in view of present conditions, according to the Railway Gazette (London). For the fiscal year 1920-1921 the Buenos Aires Great Southern, the Buenos Aires Western and the Central Argentine are each paying 4 per cent, whereas for the previous year the Great Southern and the Western each paid 7 per cent and the Central Argentine 6 per cent. The position of these three companies was strengthened last year by the transference to reserve of exceptional profits accruing from the high exchange value of the Argentine dollar.

For the financial year just ended, however, the Gazette continues, no such windfall can be expected and the traffic returns have been discouraging. In the 52 weeks the gross income of the Great Southern had fallen by \$4,125,000 and the net returns by as much as \$8,575,000. Similarly, the Western gross returns

were lower by \$5,750,000 and the net figures by \$6,350,000. The Central Argentine does not publish net returns, but its gross figures for the 52 weeks showed an increase of only \$75,000. To pay this year's reduced dividend the Great Southern will admittedly have to take \$2,750,000 and the Western \$2,500,000 from reserve.

Railroad Fosters "Good Roads"

Campaign in Argentina

The Buenos Aires & Pacific has begun an active campaign to arouse interest among farmers and landowners in the improvement of roads leading to the railway, according to Commerce Reports. Motion pictures have been prepared showing the present state of the roads together with pictures of good roads in the United States and methods of road building. These pictures have been well received in the country districts. The railroad company announces that it will assist in the organization of local committees, the loan of road-building machinery, and offers the services of its surveyors.

Australian Railway Gage Conversion

A uniform railway gage for Australia, which has been under discussion for many years, is now brought a step nearer realization by the recent report of the commission appointed by the federal government in December, 1920, to investigate the subject, according to the Railway Gazette (London). As had been anticipated, the commission recommends the adoption of the 4 ft. 8½ in. gage, which has been in use from the first on the New South Wales Government Railways, and was deliberately adopted for the Trans-continental railway of the federal government from Kalgoorlie to Port Augusta, which was opened in 1917. The estimated cost in 1913 of the general conversion of the Australian railways to the 4 ft. 8½ in. gage was \$115,000,000, but at the conference last December of the chief civil engineers of the different state railways, the estimate for the conversion of the whole of the existing railways was put at \$468,000,000.

In view of this very heavy cost it is proposed, as a first step, that the gage be made uniform between the five state capitals. This, at present prices, has been estimated to cost \$132,500,000. The main difficulty now is the question of finance, which has to be arranged with the premiers of the different states. Mr. Hughes, the federal prime minister, who has always been a strong advocate of gage uniformity from the point of view of national defense, is understood to be ready to discuss with the conference of state premiers the practicability of taking action to begin a gradual conversion.

French Railways and the State

The paramount problem awaiting solution in France is, according to a special dispatch to the New York Tribune, the reorganization of the railroads. Before the war the railroads averaged enough to pay fixed charges, the dispatch continues. Stocks and bonds of the railroads are guaranteed by the government through an agreement by which the railroads will gradually pass under state ownership in 1980. Public opinion is strongly opposed to an extension of state activity now and it would not be surprising if public monopolies are abandoned as unprofitable. During the war the railroads were greatly overworked and in the zone of German occupation were systematically destroyed. Now the pre-war status has been restored. Of the 600 bridges destroyed, 565 have been rebuilt, while locomotives number more than 1,000 above the pre-war total. Recently an American signaling system has been installed at great expense. Plans for electrification are being rapidly pushed and it is estimated that within six years 5,000 miles will have been completed.

To cover these productive expenditures the Chamber of Deputies is now preparing to ratify a bill already passed by the Senate for a large increase in rates, amounts of which are left to the discretion of the railroads. These may reach 180 per cent for freight and baggage and 100 per cent for passengers. They are to continue until 1926. The railroad deficit last year of \$600,000,000 was said to be due to adoption of the eight-hour day and to reconstruction improvements. Now conditions are rapidly improving as a result of lower coal prices and the termination of reconstruction.

Railway Conditions in Soviet Russia

The following observations on railway conditions in Siberia and European Russia are from a source which the Bureau of Foreign and Domestic Commerce considers reliable and are of recent experience:

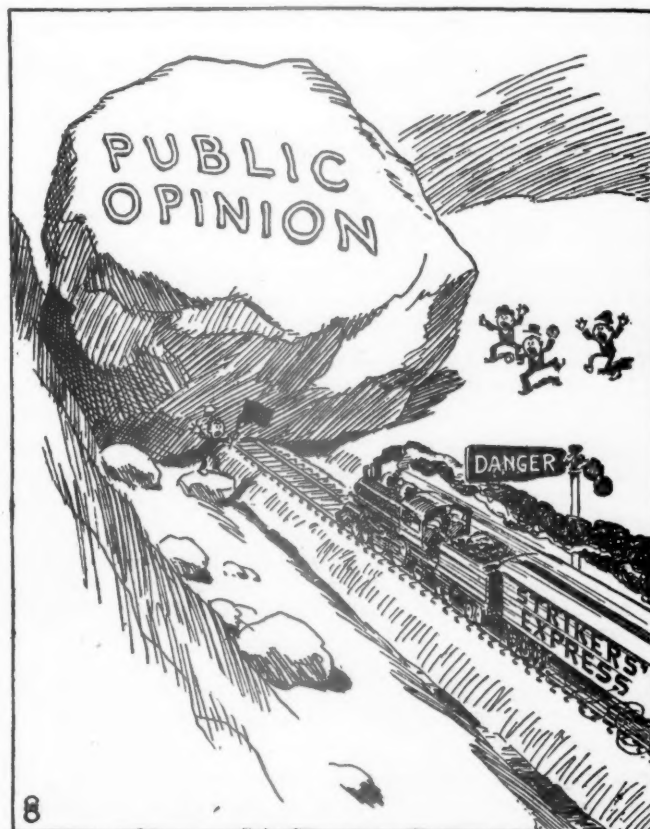
"On the main line of the Trans-Siberian Railway the roadbed seemed to be in good condition all the way. Section hands and trackmen employed under the old régime have remained at their posts, despite arrears in their pay, and have made the necessary repairs in track ballast. Telegraph lines are also in good condition, and fully half the poles have been renewed during the last two years, according to the date marks on them. A number of stops were made en route on account of delays in transportation.

"The rolling stock of the railways is in a very unsatisfactory condition, chiefly due to lack of spare parts for repairs. This is especially true of locomotives. The yards in practically every terminal were filled with locomotives that had been junked. There seems to be a large supply of box and gondola cars, although many of them have been requisitioned on sidetracks to house soldiers and in some cases refugees. There is great shortage of passenger cars, and all of them are in bad condition. Hot boxes were very frequent all along the lines on account of worn-out bearings and inferior oil.

"Trains are running regularly three times a week from Irkutsk to Omsk, taking four days for the journey, and to both Petrograd and Moscow, requiring from four to five days each. A large number of the passengers on these trains are soviet officials, as it is exceedingly difficult for civilians to secure permission from the authorities to travel. A large number of civilians, however, were traveling with their possessions in freight cars in both directions.

"The north route to Perm and the routes from Moscow to Petrograd, Reval, and Riga are in fair condition, but the southern routes to the Urals and many of the others in central and southern Russia have been partially or completely abandoned.

"A German commission is in Moscow negotiating for the operation of some of the railway lines."



From the New York Tribune

Well, They Can't Say the Signal Wasn't Working

Equipment and Supplies

Freight Cars

THE ILLINOIS CENTRAL is inquiring for 1,000 40-ton refrigerator cars.

THE VIRGINIAN RAILWAY is inquiring from the car builders, for prices on the repair of 4,000 freight cars.

THE DELAWARE, LACKAWANNA & WESTERN is inquiring for 500 steel underframe box cars of 40-ton capacity.

THE CENTRAL OF NEW JERSEY has ordered 125, 50-ton coal cars and 85, 40-ton box cars from the Standard Steel Car Company.

THE GRAND TRUNK is inquiring for 200 refrigerator cars for the Chicago, New York & Boston Refrigerator Company, which is controlled by the Grand Trunk.

THE CANADIAN NATIONAL RAILWAYS this week let contracts to the Canadian Car & Foundry Company and the Eastern Car Company for the repair of 3,000 box cars with wood underframes.

THE CHICAGO, MILWAUKEE & ST. PAUL, reported in the *Railway Age* of October 8 as inquiring for 2,500 composite gondola cars of 50-ton capacity, is now inquiring for 1,000 general service cars and 2,000 gondola cars.

THE TOLEDO & OHIO CENTRAL, reported in the *Railway Age* of October 22, as asking for prices on the repair of a number of freight cars, has entered into a contract with the Ralston Steel Car Company for the repair of about 360 cars, for this road and the Kanawha & Michigan. A contract has also been given by the Toledo & Ohio Central to the Hamilton Car Company, Newark, Ohio, for the repair of 200 box cars.

Iron and Steel

THE CHICAGO, BURLINGTON & QUINCY is inquiring for bids on 1,500 tons of plates for car repairs.

THE PHILADELPHIA & READING recently received bids on 28,000 tons of fabricated steel for use on nine bridges.

THE CHICAGO, BURLINGTON & QUINCY has awarded a contract for three 55-ft. girder spans, 100 tons, to the McClintic-Marshall Company, Chicago.

THE CHICAGO & ALTON has awarded a contract for 201 tons of steel for approaches to a freight house at Chicago to the American Bridge Company, Chicago.

THE IMPERIAL JAPANESE GOVERNMENT RAILWAYS are receiving bids at Tokio, November 4, through Mitsui & Company, New York, for 1,800 tons of 60-lb. rail and 4,700 tons of 75-lb. rail.

THE UNITED STATES STEEL CORPORATION announces a reduction in the price of open hearth steel rails, from \$47 to \$40 a ton. Orders have already been placed for 100,000 tons of rail at the new price.

THE IMPERIAL JAPANESE GOVERNMENT RAILWAYS, through Suzuki & Company, New York, have ordered 200 tons of 100-lb. rail and 5,000 tons of 75-lb. rail, from the U. S. Steel Products Company.

THE CANADIAN PACIFIC has ordered 32,000 tons of rail from the Algoma Steel Corporation. This is in addition to the 25,000 tons ordered from the same company, as reported in the *Railway Age* of September 17.

THE GREAT NORTHERN has let a contract for 485 tons of steel for a drawbridge at Delta, Wash., to the Milwaukee Bridge Company, Milwaukee, Wis., and not the Wisconsin Bridge & Iron Company as incorrectly reported in the *Railway Age* of October 22 (p. 802).

MITSUI & COMPANY is inquiring for 2,050 tons of 60-lb. rail for export to Japan; also for 100 tons of galvanized steel wire. Bids are also wanted on 7,000 tons of steel tower material for the Formosa Electric Power Company.

Miscellaneous

NICHOLSON THERMIC SYPHONS have been ordered from the Locomotive Fire Box Company, Chicago, for the 14 Mikado locomotives ordered from the American Locomotive Company by the Chicago, Rock Island & Pacific.

THE ATCHISON, TOPEKA & SANTA FE has awarded a contract for one 55,000 bbl. steel tank, 115 ft. in diameter and 30 ft. high, and one 152,000 gal. tank, 24 ft. in diameter by 40 ft. high, to the Graver Corporation, Chicago, to be erected at Clovis, New Mexico. Both tanks are for the storage of fuel oil for oil-burning locomotives.

THE GREAT NORTHERN is asking for prices on 1 heavy-duty, all-steel, No. 3, industrial pile-driver, capable of handling concrete piles weighing 8,000 lb., driving radius not less than 20 ft., and equipped with locomotive type boiler, with steam hammer and 4,000-lb. drop hammer, Pyle electric headlight and air brake and to be self-propelling.

THE NORFOLK & WESTERN will receive bids until 12 o'clock noon, November 2, 1921, at Roanoke, Va., for electrical material; 300 rods wire fencing; 2,500 steel ties; 10 steel ship building channels; 200 bars reinforcing steel; 90,000 lb. welding and threading steel; its requirements of locomotive driving wheel and truck tires, for the months October to December, 1921, and 7,500 steel switch plates.

Railway Construction

CHICAGO & ALTON.—This company has awarded a contract to I. D. Lain & Company, Bloomington, Ill., for extensive grade separation work at Division street, Bloomington. The same company will also build a second track from Godfrey, Ill., to Brighton Park, a distance of 6 miles, at an estimated cost of \$256,000, and from Roodhouse, Ill., to Manchester, a distance of 5 miles, at an estimated cost of \$96,000.

GREAT NORTHERN.—This company, in conjunction with the Northern Pacific, is negotiating with the city of Minneapolis, Minn., for extensive grade separation work.

ILLINOIS CENTRAL.—This company, which was noted in the *Railway Age* of October 22 (page 804) as accepting bids for the reconstruction of a depot at Marissa, Ill., which was recently destroyed by fire, has awarded a contract for this work to the Ellington-Miller Construction Company, Chicago.

MISSOURI, KANSAS & TEXAS.—This company is planning the construction of a freight house at Oklahoma City, Okla.

ST. LOUIS-SAN FRANCISCO.—This company will soon accept bids for the construction of a station at Francis, Okla.

YAZOO & MISSISSIPPI VALLEY.—This company has filed an application with the Louisiana Public Service Commission for permission to erect a new passenger station at Baton Rouge, La.

THE SECOND ANNUAL meeting of the International Chamber will be held in Rome, Italy, beginning September 18, 1922. At the first annual meeting held last June in London more than 200 American business men, representing virtually every industry in the United States, attended. Among the numerous subjects which are to be studied by international committees are: Export credits, foreign exchange, reciprocal treatment of foreign banks, bills of exchange, economy of fuel, international bureau of statistics, international commercial arbitration, international protection of industrial prosperity, unification of tariff nomenclature, reciprocal treatment of commercial travelers, reform of the calendar, through freight trains on great international traffic routes, uniformity of ships' tonnage measurement, combined rail and ship bill of lading, uniform ocean bills of lading, uniform interpretation of meaning of trade terms, and uniform passport regulations.

Supply Trade News

The H. K. Ferguson Company, Cleveland, Ohio, has taken over the exclusive sales rights for the Shoemaker gap crane and other products of the Morgan Engineering Company, Alliance, Ohio, in the railway field.

W. H. Snedaker, formerly in the Tacoma, Wash., office of the Griffin Wheel Company, Chicago, has been appointed manager of sales at the office established by the company in the Rialto building, San Francisco, Cal.

The Reilly-Peabody Fuel Company, Pittsburgh, Pa., announces a change in name to Peabody Fuel Company with the following officers: F. E. Peabody, president; R. E. Peabody, vice-president; W. Russel Carr, vice-president; C. M. Rhoads, secretary and treasurer, and T. J. Atchison, general sales manager. All these also are officers of the American Coke Corporation, with the same titles. F. E. Peabody has resigned as treasurer of the Eastern Fuel Company and severed all his connection with that company and its subsidiary, the Georges Creek Coal Mining Company.

Press G. Kennett, formerly representative of the Flint Varnish & Color Works, with headquarters at St. Louis, Mo., in charge of sales in the south and southwest, has



P. G. Kennett

been appointed manager of the railway sales of the Chicago Varnish Works, with headquarters at Chicago. Mr. Kennett has been with the Flint Varnish & Color Works for the past 12 years, and when the Du Pont interests took over the company he was appointed representative at St. Louis. Prior to going with the Flint concern, he was connected with the purchasing and supply departments of several railroads in the south and southwest, serving as general storekeeper for Illinois Southern

in 1905 and in the same capacity for the Southern Indiana in 1906 and 1907.

Inland Steel Company Enters Rail Market

The Inland Steel Company is making arrangements to manufacture steel rails at its Indiana Harbor works and will be in a position to offer standard section rails for delivery beginning in March, 1922. The decision of the company to engage in rail production is based on the fact that the demand for rails is anticipated to be one of the most important branches of the steel industry in 1922, and that another producer in the west is needed. Work has been started on a new building, 100 ft. by 800 ft., at the Indiana Harbor works of the company, in which the rail finishing equipment will be housed. The entire plant will have a capacity of 2,000 tons of finished rails daily and consists of a 28-in. mill, 3 high and 3 stands of rolls, served by a 32-in. roughing mill, which in itself is served by a 40-in. blooming mill, all electrically driven and the most recent installation of its kind. Four large heating furnaces are necessary as it is the intention of the company to re-heat the blooms before rolling the rails. The 28-in. mill referred to has heretofore been used chiefly in the manufacture of heavy structural material, the demand for which in the Chicago territory is not engaging the full capacity of the mill under present conditions.

Rumored Pullman and

Haskell & Barker Will Combine

There is persistent rumor at Chicago that the Pullman Company is about to absorb the Haskell & Barker Car Company, this rumor going so far as to name the head of the consolidated company. The plan, it is said, calls for a meeting of the directors of the two companies in the next week or ten days, when details will be discussed. It is reported that the officers of the two companies involved have already discussed the plan informally and that John S. Runnels, president of the Pullman Company, is to become chairman of the board of directors of the new company and Edward F. Carry, president of Haskell & Barker, is to become president. The merger would bring together the Pullman Company, with a capitalization of \$173,000,000, and with plants at Pullman, Ill., St. Louis, Mo., Wilmington, Del., Buffalo, N. Y., and Richmond, Cal., and, with a capitalization of \$36,000,000, the Haskell & Barker Car Company, with a plant at Michigan City, Ind., with an annual capacity of 22,500 freight cars.

Obituary

George R. Henderson, formerly consulting engineer of the Baldwin Locomotive Works, died on October 19, at Media, Pa. He was born on January 14, 1861, at Philadelphia, Pa., and graduated from Lauderback Academy, Philadelphia, in 1876. Two years later he began railway work, serving consecutively to 1887, as apprentice, draftsman and assistant chief draftsman of the Pennsylvania Railroad. He was then to March, 1899, with the Norfolk & Western as assistant superintendent of the Roanoke shop and mechanical engineer. From March to July, 1899, he was with the Schenectady Locomotive Works, and from July of that year to June, 1901, served as assistant superintendent of motive power and machinery of the Chicago & North Western. He was then assistant superintendent of machinery and superintendent of motive power of the Atchison, Topeka & Santa Fe until August, 1903. The following year he became a consulting mechanical engineer at New York and in 1910 went to Brazil, serving for two years on the railways of Brazil. He then returned to the United States to become consulting engineer of the Baldwin Locomotive Works. During the war Mr. Henderson was consulting engineer to the Federal Fuel Administration in the Philadelphia district. He was the author of several books on engineering, also of a number of articles published in the *Railway Age*.

Trade Publications

MATERIAL HANDLING SYSTEMS.—The Stearns Conveyor Company, Cleveland, Ohio, has issued a 16-page booklet—bulletin No. 100—in which ten pages are devoted to belt conveyors, two pages to traveling bucket hoists, and one page each to wall winches and car movers. The booklet is amply illustrated with photographs and line drawings and includes engineering data of value covering the design of belt conveyors.

TELESCOPIC HOISTS.—Gillis & Geoghegan, New York, have issued a new 20-page, two-color catalog descriptive of its telescopic hoists and the various uses to which they may be put. The booklet is illustrated with photographs of actual installations for handling ash cans, barrels, trays and other loads. It contains two forms of specification for each model, one of which describes the various parts of a complete telescopic hoist installation.

MEALS AT ONE DOLLAR, a luncheon or a dinner, can now be had on the dining cars of the Pennsylvania Railroad, special combination luncheon and dinners being served at this price on all cars throughout the System. This convenience is in addition to the usual a la carte features. During a brief experimental period about thirty different combinations have been tried. Others are being added, and changes are to be made frequently, in order to afford variety of choice as well as to determine those which are most popular. Each special combination consists of either meat or fish, two vegetables, rolls and coffee, tea or milk.

Railway Financial News

ALABAMA & MISSISSIPPI.—Authorized to Abandon Line.—The Interstate Commerce Commission has issued a certificate authorizing the receiver of the Alabama & Mississippi railroad companies of Alabama and Mississippi to abandon their lines of railroad extending from Vinegar Point, Ala., to Pascagoula, Miss., 67 miles.

ALABAMA GREAT SOUTHERN.—Annual Report.—The income account for the year ended December 31, 1920, compares with the previous year as follows:

	1920	1919
Operating revenues (March 1 to Dec. 31).....	\$9,805,561	.....
Operating expenses (March 1 to Dec. 31).....	7,661,510	.....
Net revenue from operations.....	2,144,051	.....
Taxes.....	283,053	.....
Operating income (March 1 to Dec. 31).....	2,057,518	.....
Standard return (January and February, 1920, full year 1919).....	283,863	\$1,703,180
Total non-operating income.....	236,193	180,973
Gross income.....	2,577,574	1,884,153
Interest on funded debt.....	465,239	461,917
Total deductions from gross income.....	918,406	637,972
Balance of income over charges.....	1,659,168	1,246,180
Dividends:		
7 per cent on preferred stock.....	236,625	236,625
7 per cent on ordinary stock.....	548,100	548,100
Balance carried to profit and loss.....	873,350	461,456

The operating revenues and expenses in detail and the principal traffic statistics for 1920 compare with the previous year as follows:

	1920	1919
OPERATING REVENUES		
Freight	\$8,345,701	\$7,470,847
Passenger	2,507,382	2,476,753
Total operating revenues.....	\$11,703,433	\$10,529,739
OPERATING EXPENSES		
Maintenance of way and structures.....	\$1,325,738	\$1,513,344
Maintenance of equipment.....	2,675,990	2,587,465
Traffic	252,359	160,372
Transportation	4,655,846	3,906,049
General	305,706	223,988
Total operating expenses.....	\$9,313,423	\$8,463,777
Net revenue from operations.....	2,390,010	2,065,963
Taxes	331,740	285,014
Operating income	2,056,964	1,779,530
PASSENGER TRAFFIC		
Number of passengers carried.....	1,173,303	1,235,036
Number of passengers carried one mile.....	81,387,423	93,468,232
Average distance hauled per passenger (miles).....	69.37	75.68
Average receipts per passenger per mile (cents).....	3.08	2.68
FREIGHT TRAFFIC		
Number of revenue tons carried.....	5,702,772	5,463,638
Number of revenue tons carried one mile.....	928,543,723	838,745,409
Average distance hauled per ton (miles).....	162.82	153.51
Average receipts per ton per mile (cents).....	0.90	0.89

AHUKINI TERMINAL & RAILWAY.—Authorized to Issue Stock.—The Interstate Commerce Commission has authorized this company to issue for cash at not less than par \$620,000 of capital stock, the proceeds to be used in constructing and equipping its proposed line on the Island of Kauai, Territory of Hawaii.

CALIFORNIA SOUTHERN.—Bond Issue.—This road, which was taken over recently by the Atchison, Topeka & Santa Fe, was authorized by the Railroad Commission of the State of California, on October 3, to sell at not less than face value \$35,000 of first mortgage bonds to pay for rails used in extending the line. The order provides that none of the bonds shall be delivered until a note for a like amount and for which the bonds have been pledged shall have been paid.

CANADIAN NATIONAL RAILWAYS.—Resignation of Director.—E. C. Cantley has resigned as director having accepted a nomination for the Canadian House of Commons.

DENVER & SALT LAKE.—Petition Court to Close Road.—The Bankers Trust Company of New York, trustee for the bondholders, filed a petition in the United States District Court at Brighton, Colo., on October 26, asking that the court either order the railroad closed or issue an order that wages or operating costs be reduced so that the road can operate at a profit. The court set November 3 next for hearing on the petition. The Denver & Salt Lake operates between Denver, Colo.,

and Craig, 255 miles. It has been in the hands of receivers since August 16, 1917.

FORT WORTH & DENVER CITY.—This company has applied to the Interstate Commerce Commission for authority for the extension of \$8,176,000 of its 6 per cent first mortgage bonds for 40 years from December 1 at 5½ per cent.

GEORGIA, SOUTHERN & FLORIDA.—Annual Report.—The income account for the year ended December 31, 1920, compares with the previous year as follows:

	1920	1919
Operating revenues (March 1 to December 31)....	\$4,281,953	.....
Operating expenses (March 1 to December 31)....	4,457,031	.....
Net revenue from operations.....	Def. 175,078	.....
Taxes.....	158,423	.....
Operating income (March 1 to December 31).....	Def. 360,377	.....
Standard return (January and February, 1920; full year 1919).....	85,243	\$511,457
*From U. S. Government account guaranty, March 1 to August 31.....	130,000	.....
Total non-operating income.....	216,912	13,246
Gross income.....	Def. 58,222	524,703
Interest on funded debt.....	280,000	280,000
Total deductions from gross income.....	312,502	353,619
Balance of income over charges.....	Def. 370,725	171,084
Dividends of 5 per cent on preferred stock.....	88,400	88,400
Balance carried to profit and loss.....	Def. 370,725	82,684

*Includes only the \$130,000 actually received from the United States Government on account of the amount due the company under the six months' guaranty provision of the Transportation Act, and does not include the balance of \$530,336 claimed by the company on said account.

The operating revenues and expenses in detail and the principal traffic statistics for 1920 compare with 1919 as follows:

	1920	1919
OPERATING REVENUES		
Freight	\$3,304,355	\$2,783,070
Passenger	1,539,896	1,226,272
Total operating revenues.....	\$5,433,079	\$4,374,501
OPERATING EXPENSES		
Maintenance of way and structures.....	\$930,927	\$740,901
Maintenance of equipment.....	1,299,502	1,051,681
Traffic	97,921	72,889
Transportation	2,876,782	2,099,221
General	154,323	129,814
Total operating expenses.....	\$5,391,095	\$4,121,924
Net revenue from operations.....	41,985	252,577
Taxes	193,423	188,553
Operating income	Def. 154,166	63,054
PASSENGER TRAFFIC		
Number of passengers carried.....	806,073	802,414
Number of passengers carried one mile.....	49,496,593	44,816,041
Average distance hauled per passenger (miles).....	61.40	55.85
Average receipts per passenger per mile (cents).....	3.111	2.736
FREIGHT TRAFFIC		
Number of revenue tons carried.....	1,749,464	1,508,743
Number of revenue tons carried one mile.....	282,410,416	240,934,568
Average distance hauled per ton (miles).....	161.43	159.69
Average receipts per ton per mile (cents).....	1.170	1.155

KANAWHA & MICHIGAN.—Annual Report.—The income account for the year ended December 31, 1920, compares with the previous year as follows:

	1920	1919
Compensation (January and February).....	\$215,857	.....
Additional compensation account completed additions and betterments.....	33,398	.....
U. S. Government guaranty, March 1 to August 31	680,271	.....
Net railway operating income, September 1 to December 31.....	524,134	.....
Total (compared with compensation accrued in 1919)	1,453,660	\$1,379,651
Total other income.....	93,621	78,820
Gross income.....	1,547,281	1,458,471
Interest on funded debt.....	364,608	299,818
Total deductions from gross income.....	542,677	530,291
Less revenues and expenses applicable prior to January 1, 1918, settled by U. S. R. A.....	84,189	*76,290
Net corporate income.....	920,414	1,004,470
Dividends declared (five per cent).....	450,000	450,000
Surplus for the year.....	470,414	554,470

*Credit in 1919.

The operating revenues and expenses in detail and the principal traffic statistics for 1920 compare with 1919 as follows:

	1920	1919
OPERATING REVENUES		
Freight	\$4,501,296	\$3,521,721
Passenger	691,252	660,741
Total operating revenues.....	\$5,404,656	\$4,324,755
OPERATING EXPENSES		
Maintenance of way and structures.....	\$1,078,824	\$661,721
Maintenance of equipment.....	1,997,833	1,619,694
Traffic	45,528	31,010
Transportation	2,128,972	1,594,379
General	174,400	168,114
Total operating expenses.....	\$5,413,858	\$4,074,931
Net revenue from railway operation.....	Def. 9,202	249,824
Railway tax accruals.....	400,732	254,138

PASSENGER TRAFFIC

Number of revenue passengers carried.....	1,288,863	1,344,291
Number of revenue passengers carried one mile....	24,213,327	25,137,836
Average distance each revenue passenger carried (miles)	18.79	18.70
Average revenue per passenger per mile (cents)...	2.85	2.63

FREIGHT TRAFFIC

Number of revenue tons carried.....	5,270,432	4,412,546
Tons of revenue freight carried one mile.....	565,136,973	484,820,916
Average distance haul of one ton of revenue freight	107.23	109.87
Average revenue per ton per mile (mills).....	7.96	7.26

KANSAS, OKLAHOMA & GULF.—Loan from Revolving Fund Asked.—This company has applied to the Interstate Commerce Commission for a loan of \$800,000 for 15 years from the revolving fund for the purchase of 500 steel underframe coal cars.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE.—Asks Authority to Abandon Line.—This company has applied to the Interstate Commerce Commission for authority to abandon 3.9 miles of line between Ironhub and Deerwood, Minn.

MOBILE & OHIO.—Annual Report.—The income account for the year ended December 31, 1920, compares with the previous year as follows:

	1920	1919
Operating revenues (March 1 to December 31)...	15,660,779	.....
Operating expenses (March 1 to December 31)...	16,881,459	.....
Net revenue from operations.....	Def. 1,220,680	.....
Taxes	531,150	.....
Operating income (March 1 to December 31).....	Def. 1,151,113	.....
Standard return (January and February, 1920; full year 1919).....	481,982	2,597,478
*From U. S. Government account guaranty March 1 to August 31.....	1,325,000	.....
Total non-operating income.....	1,414,749	87,823
Gross income.....	745,618	2,685,301
Interest on funded debt.....	1,359,090	1,365,090
Total deductions from gross income.....	1,872,744	1,672,294
Balance on income over charges.....	Def. 1,127,127	1,013,007
Dividend of 4 per cent on common stock.....	†	240,672
Balance carried to profit and loss.....	Def. 1,127,127	772,335

*Includes only the \$1,325,000 actually received from the United States Government on account of the amount due the company under the six months' guaranty provision of the Transportation Act, and does not include the balance of \$1,583,182 claimed by the company on said account.

†Dividend of \$240,672 for 1920 charged to profit and loss.

The operating revenues and expenses in detail and the principal traffic statistics for 1920 compare with 1919 as follows:

	1920	1919
OPERATING REVENUES		
Freight	\$15,088,362	\$12,527,835
Passenger	2,404,393	2,226,122
Total operating revenues.....	\$18,796,153	\$15,636,715
OPERATING EXPENSES		
Maintenance of way and structures.....	\$3,673,004	\$2,815,764
Maintenance of equipment.....	6,025,990	5,041,699
Traffic	422,868	295,419
Transportation	9,127,377	7,372,567
General	612,148	507,413
Total operating expenses.....	\$19,872,796	\$16,043,045
Net operating revenues.....	Def. 1,076,643	Def. 406,331
Taxes	654,150	588,022
Operating income.....	Def. 1,731,135	Def. 995,911

PASSENGER TRAFFIC

Number of passengers carried.....	2,310,935	2,242,094
Number of passengers carried one mile.....	79,410,414	78,577,198
Average distance hauled per passenger (miles).....	34.36	35.05
Average receipts per passenger per mile (cents).....	3.028	2.883

FREIGHT TRAFFIC

Number of revenue tons carried.....	7,199,292	6,150,826
Number of revenue tons carried one mile.....	1,774,969,989	1,492,380,726
Average distance hauled per ton (miles).....	246.55	242.63
Average receipts per ton per mile (cents).....	0.850	0.839

NEW YORK, NEW HAVEN & HARTFORD.—Authorized to Sell Equipment Notes.—This company having heretofore been authorized by the Interstate Commerce Commission to pledge \$2,000,000 of its equipment trust notes as collateral security for loans evidenced by promissory notes, has now been authorized by the commission to sell the equipment trust notes to the amount of \$1,602,000 on a basis of 7½ per cent.

PERE MARQUETTE.—Authorized to Abandon Branch Line.—The Interstate Commerce Commission has issued a certificate authorizing the abandonment of the branch line from Harrison to Leota, Mich., 9.88 miles.

SAVANNAH & ATLANTA.—Foreclosure Action Allowed.—An order allowing the filing of foreclosure proceedings against this company has been signed by Judge Evans, on the application of the Farmers Loan and Trust Company, of New York, trustee for

the bondholders. The Savannah & Atlanta has been in the hands of receivers since March 4, 1921.

SOUTHERN.—Authorized to Issue Bonds.—This company has been authorized by the Interstate Commerce Commission to sell \$5,655,000 of first consolidated mortgage 5 per cent gold bonds to provide funds for the retirement of an equal amount of the first mortgage bonds of the Georgia-Pacific which mature January 1.

Annual Report.—A review of this company's annual report for 1920 appears on another page of this issue.

ST. LOUIS-SAN FRANCISCO.—Authorized to Issue Bonds.—This company has been authorized by the Interstate Commerce Commission to issue \$4,578,000 of prior lien mortgage bonds, to be pledged and re-pledged from time to time as collateral security for short term notes.

Railroad Administration Settlements

The United States Railroad Administration reports the following final settlements, and has paid out to the several companies the following amounts:

Pullman Company	\$7,250,000
Danville & Western.....	260,000
Hartwell	24,500
Carolina & Tennessee Southern.....	5,000
Asheville & Craggy Mountain.....	5,500
Denison & Pacific Suburban.....	13,000
Weatherford, Mineral Wells & Northwestern.....	36,000
Birmingham & Northwestern.....	10,000

SHORT LINE RAILROADS

Middle Tennessee	5,000
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The payment of these claims on final settlement is largely made up of balance of compensation due, but includes all other disputed items as between the railroad companies and the administration during the 26 months of federal control.

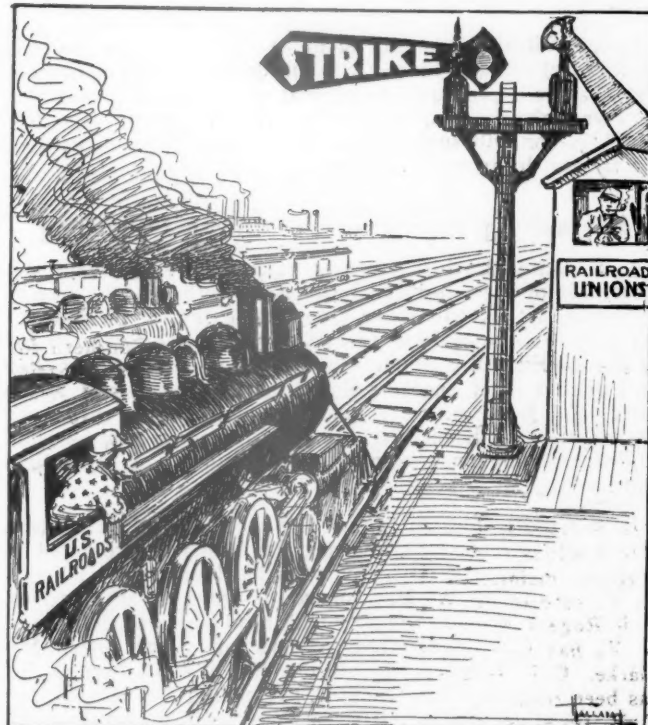
Dividends Declared

Delaware & Hudson.—2½ per cent, quarterly, payable December 20 to holders of record November 26.

Illinois Central.—1¾ per cent, quarterly, payable December 1 to holders of record November 4.

Norfolk & Western.—Common, \$1.75, quarterly, payable December 19 to holders of record November 30.

Pennsylvania Railroad.—1 per cent, quarterly, payable November 30 to holders of record November 1.



From the Providence Journal

Go Ahead, Mr. Engineer—Damn the Signals

Railway Officers

Financial, Legal and Accounting

M. B. McBride has been appointed auditor of the Cowlitz, Chehalis & Cascade with headquarters at Seattle, Wash., effective September 1.

R. P. Crutchfield, whose appointment as treasurer of the Union Railway with headquarters at Memphis, Tenn., was announced in the *Railway Age* of October 22 (page 806), was born at Paris, Tenn., on July 24, 1893, and was educated in the public schools. He entered railroad service on July 5, 1911, as utility clerk in the master mechanic's office of the Louisville & Nashville, and was promoted to timekeeper in May of the following year. He left that road in February, 1915, to become accountant in the auditor's office of the Union Railway, with headquarters at Memphis, Tenn., and was promoted to chief clerk to the auditor on June 1, 1915, which position he was holding at the time of his recent promotion.

Operating

O. F. Ohlson, trainmaster of the Northern Pacific, with headquarters at East Grand Forks, Minn., has been transferred to Mandan, N. D., succeeding C. T. Sponsel, who has been granted a three months' leave of absence. **F. W. Lyons** will succeed Mr. Ohlson as trainmaster at East Grand Forks.

Traffic

G. G. Early, general agent of the Wabash, with headquarters at Philadelphia, Pa., has been promoted to assistant general freight agent, with headquarters at St. Louis, Mo. **R. A. Walton** will succeed Mr. Early at Philadelphia.

A. Brostedt has been appointed general traffic agent of the Canadian National with headquarters at Shanghai, China. Mr. Brostedt will have supervision of the company's freight and passenger traffic interests in China, Japan, the Straits Settlements and the Philippines.

J. W. Williams, general agent of the freight department of the Gulf Coast Lines, with headquarters at Beaumont, Tex., has been promoted to general agent, with headquarters at Birmingham, Ala., succeeding W. W. Stine, deceased. **F. W. Nason** will succeed Mr. Williams as general agent of the freight department at Beaumont.

Engineering, Maintenance of Way and Signaling

J. S. Lemond, chief engineer maintenance of way and structures of the Southern, Lines East, with headquarters at Charlotte, N. C., will retire from active service on November 1 at the age of 70 after having served the Southern for 39 years. He will continue in service in an advisory capacity as assistant chief engineer maintenance of way and structures, and **J. B. Akers**, engineer maintenance of way with headquarters at Knoxville, Tenn., will succeed him as chief engineer maintenance of way and structures. **J. A. Killian** will succeed Mr. Akers.

H. S. Clarke, division engineer of the Delaware & Hudson with headquarters at Carbondale, Pa., has been promoted to engineer, maintenance of way, with headquarters at Albany, N. Y., succeeding **W. B. Leonard**, assigned to other duties. **H. S. Rogers**, division engineer with headquarters at Oneonta, N. Y., has been transferred to Carbondale, succeeding Mr. Clarke. **C. D. Hughey**, division engineer at Plattsburg, N. Y., has been transferred to Oneonta, succeeding Mr. Rogers, and **F. P. Gutelius, Jr.**, assistant engineer with headquarters at Albany, has been promoted to division engineer with headquarters at Plattsburg, succeeding Mr. Hughey.

Purchasing and Stores

B. T. Jellison, general purchasing agent of the Chesapeake & Ohio, has been appointed special agent, handling special matters assigned, and the position of general purchasing agent has been abolished, effective November 1.

C. W. Dearworth has been appointed division storekeeper of the Erie with headquarters at Huntington, Ind., and **R. H. Pauling** has been appointed to a similar position with headquarters at Marion, O., effective October 1.

C. K. Reasor has been appointed assistant manager of stores of the Erie with headquarters at New York. **F. J. Talbot** has been appointed superintendent of stores of the New York and Hornell regions with headquarters at Hornell, N. Y., and **J. H. Sweeney** has been appointed to a similar position for the Ohio and Chicago regions, with headquarters at Meadville, Pa.

Obituary

J. S. Browne, assistant engineer maintenance of way of the New York, New Haven & Hartford, died October 22.

Edward L. Hill, car accountant of the Louisville & Nashville with headquarters at Louisville, Ky., died October 17 at the age of 68 at Louisville. Mr. Hill had been in the service of the Louisville & Nashville for 45 years.

Harry C. Meloy, supervisor of electrical appliances, New York Central lines west of Buffalo, whose death was noted in last week's issue of the *Railway Age*, was born on February



H. C. Meloy

16, 1865, in Bedford, Pa. After completing a high school education in Bedford, Mr. Meloy entered the railway shops of the Pennsylvania at Altoona, Pa., and served an apprenticeship course there. After completing the apprenticeship course he was employed for a short time at the Swissvale plant of the Union Switch & Signal Company, after which he accepted a position as chief electrician of the Norfolk & Western at Roanoke, Va., which position he held for ten years. In April, 1902, he left the serv-

ices of the Norfolk & Western to accept a position on the Lake Shore & Michigan Southern as chief electrician in charge of car lighting. In 1910 he was promoted to supervisor of electrical appliances and in 1914 the Lake Shore was consolidated with the New York Central. After the consolidation Mr. Meloy continued to hold the title of supervisor of electrical appliances on lines west of Buffalo, which position he held until the time of his death. Mr. Meloy was a charter member of the Association of Railway Electrical Engineers. He was president of the association in 1908 and from the time of its organization.

Albert Sartiaux, formerly and for many years general manager and chief engineer of the Northern Railway of France, died recently at his home in Paris, at the age of 72. Mr. Sartiaux was one of the best known railroad officers of Europe. He was a life-long advocate of a tunnel beneath the Channel to England.

T. S. Walton, freight claim agent of the Missouri Pacific, with headquarters at St. Louis, Mo., died suddenly at his home in that city on October 20. Mr. Walton had been in the service of the Missouri Pacific for several years and was a member of the general committee of the Freight Claim division of the American Railway Association.